Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745

Title V Operating Permit

Permit No.: 27759-14-TV Plant ID: 42

Effective Date: 4/10/2014 Expiration Date: 4/30/2019

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Clariant Corporation (Louisville South Plant)
4900 Crittenden Drive
Louisville, KY 40209

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than six (6) months prior to the expiration date.

Application Received: 4/4/2007

Permit Writer: Karen Thorne

Administratively Complete: 6/3/2007
Public Notice Date: 2/22/2014
Proposed Permit Date: 2/22/2014

Air Pollution Control Officer
April 10, 2014

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Operating Permit History

This facility was previously permitted under a FEDOOP permit. This is the initial Title V permit for this facility.

Title V Permit 27759-14-TV Revisions

Revision	Issuance Date	Public Notice Date	Type	Description
NA	04/10/2014	02/22/2014	Initial	Initial Permit Issuance

FEDOOP Permit 0074-97-F Revisions

Revision	Issuance Date	Public Notice Date	Type	Description
5	11/05/2012	09/21/2012	Renewal	Permit Renewal
4	08/15/2003	06/08/2003	Renewal	Permit Renewal
6	07/31/2000	06/06/2000	Administrative	Attachment voided
2	06/20/2000	05/14/2000	Administrative	Name Change
1	05/30/2000	03/05/2000	Minor	Incorporate revisions to General Conditions (GC) 4, and 11, 12 and 13; new GC 13 and 14
NA	07/16/1997	04/22/1997	Initial	Initial Permit Issuance

Abbreviations and Acronyms

AP-42 - AP-42, *Compilation of Air Pollutant Emission Factors, published by USEPA*
APCD - Louisville Metro Air Pollution Control District
BAC - Background Ambient Concentration
Btu - British thermal unit
CEMS - Continuous Emission Monitoring System
CFR - Code of Federal Regulations
CO - Carbon monoxide
District - Louisville Metro Air Pollution Control District
EA - Environmental Acceptability
gal - U.S. fluid gallons
GHG - Greenhouse Gas
HAP - Hazardous Air Pollutant
HCl - Hydrogen chloride
Hg - Mercury
hr - hour
in. - inches
lbs - pounds
l - liter
LMAPCD - Louisville Metro Air Pollution Control District
mm_{Hg} - millimeters of mercury column height
MM - million
NAICS - North American Industry Classification System
NO_x - Nitrogen oxides
PM - Particulate Matter
PM_{10} - Particulate Matter less than 10 microns
$PM_{2.5}$ - Particulate Matter less than 2.5 microns
ppm - parts per million
PSD - Prevention of Significant Deterioration
psia - pounds per square inch absolute
QA - Quality Assurance
SIC - Standard Industrial Classification
SIP - State Implementation Plan
SO_2 - Sulfur dioxide
STAR - Strategic Toxic Air Reduction
TAC - Toxic Air Contaminant
UTM - Universal Transverse Mercator
VOC - Volatile Organic Compound
w.c. - water column
year - any period of twelve consecutive months, unless "calendar year" is specified
yr - year, or any 12 consecutive-month period, as determined by context

Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16 section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 1.02, Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. [Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7]

2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

US EPA - Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745

This certification must be postmarked by 15 April of the year following the year for which the certification is being submitted, or other such due date as required by another applicable regulation.

3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:

   a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.

   b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

   a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations if the conditions in Regulation 2.16 are met. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

      i. An emergency occurred and that the owner or operator can identify the cause of the emergency;

      ii. The permitted facility was at the time being properly operated;

      iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and

      iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

   b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

   c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 1.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 1.6]

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as “District-Only Enforceable Conditions”, all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]

9. **Enforcement Action Defense**

   a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

   b. The owner or operator's failure to halt or reduce activity may be a mitigating

factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. [Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]

10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. [Regulation 2.16, section 4.1.13.6]

    If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b. [Regulation 2.07, section 10.2]

12. **Insignificant Activities** - The owner or operator shall:

    a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, section 5]

    b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. [Regulation 2.16, section 4.3.5.3.6]

13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours: [Regulation 2.16, section 4.3.2]

    a. Enter the premises to inspect any emissions-related activity or records required in this permit.

    b. Have access to and copy records required by this permit.

    c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.

    d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.

14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year. All reports shall be sent to the District at the address shown in paragraph 2 of these General Conditions and must be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in

lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

Reporting Period	Report Due Date
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5.
[Regulation 2.16, section 4.1.5]

16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.

17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.

18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.

19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.

20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]

22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.

23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:

    a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;

    b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;

    c. Knowingly making any false statement in any permit application;

    d. Noncompliance with Regulation 1.07, section 4.2; or

    e. Noncompliance with KRS Chapter 77.

25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.

26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.

28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.

29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.

30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.

31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. [Regulation 2.16, section 4.1.12]

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:

Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745

b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16 sections 3.3 and 5.8.5 shall be mailed to EPA at:

US EPA - Region IV
APTMD - 12th floor
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Provisions
1.02	Definitions
1.03	Abbreviations And Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring and Reporting
1.07	Emissions During Shutdowns, Malfunctions, Startups, and Emergencies
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application
2.02	Air Pollution Regulation Requirements and Minor Facility Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes

Regulation	Title
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.01	Definitions
5.01	General Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

a. Any facility having any refrigeration equipment that normally contains fifty (50) pounds of refrigerant or more must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;

b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;

c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;

d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified

according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;

g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. [Regulation 2.16, section 4.1.5]

Source-Wide Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$, NO_X and SO_2**

The owner or operator shall not allow or cause the *plant-wide* emissions of any air pollutant to equal or exceed 100 tons during any consecutive 12-month period. (Regulations 2.04 and 2.05)

b. **Opacity**

The owner or operator shall not allow or cause visible emissions to equal or exceed twenty percent (20%) opacity. (Regulation 7.08, section 3.1.1 and Regulation 6.09, section 3.3.1)

c. **HAP**

i. The owner or operator shall not allow or cause the *plant-wide* emissions of any single HAP to equal or exceed 10 tons during any consecutive 12-month period. (Regulation 2.04)

ii. The owner or operator shall not allow or cause the *plant-wide* total HAP emissions to equal or exceed 25 tons during any consecutive 12-month period. (Regulation 2.04)

iii. *Management practices*. The owner or operator shall comply with the following paragraphs. (40 CFR 63 Subpart VVVVVV)

1) Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form). (40 CFR 63.11495(a)(1))

2) The owner or operator must conduct inspections of process vessels and equipment for each CMPU in metal HAP service, as specified in the following paragraphs to demonstrate compliance with S1.c.iii.1) and to determine that the process vessels and equipment are sound and free of leaks. (40 CFR 63.11495(a)(3))

(a) Inspections must be conducted at least quarterly. (§63.11495(a)(3)(i))

(b) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be

HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period. (§63.11495(a)(3)(ii))

(c) Inspections must be conducted while the subject CMPU is operating. (§63.11495(a)(3)(iv))

(d) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required. (§63.11495(a)(3)(v))

3) The owner or operator must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph, a leak will be considered "repaired" if a condition specified in one of the following paragraphs is met. (40 CFR 63.11495(a)(4))

(a) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or (§63.11495(a)(4)(i))

(b) No bubbles are observed at potential leak sites during a leak check using soap solution, or (§63.11495(a)(4)(ii))

(c) The system will hold a test pressure. (§63.11495(a)(4)(iii))

4) The owner or operator must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair. (40 CFR 63.11495(a)(5))

iv. Startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in 40 CFR 63.11495(a) and (b) do not apply. (40 CFR 63.11495(c))

v. *General duty*. At all times, the owner or operator must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the CMPU. (40 CFR 63.11495(d))

vi. *Emissions from metal HAP process vents*. For all metal HAP process vents from each CMPU with collective uncontrolled metal HAP emissions equal to or greater than 400 lb/yr, the owner or operator shall reduce collective uncontrolled emissions of total metal HAP emissions by ≥95 percent by weight by routing emissions from a sufficient number of the metal process vents through a closed-vent system to any combination of control devices, according to the requirements of §63.11496(f)(3). The requirements of this paragraph §63.11495(f) do not apply to metal HAP process vents from CMPU containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal

HAP that is in ingot, paste, slurry, or moist pellet form or other form). (40 CFR 63.11495(f) and Table 4)

d. **TAC**

The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.00 and 5.21) (See Comment 1.)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For each PM emission point, the owner or operator shall monitor and maintain records of the throughput of each raw material during each calendar month.

ii. The owner or operator shall calculate and record the *plant-wide* consecutive 12-month PM/PM_{10} emissions for each month in the reporting period.

b. **Opacity**

i. For each PM emission point, the owner or operator shall conduct a monthly one-minute visible emissions survey during normal process operation and daylight hours. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain monthly records of the results of all visible emissions surveys and Method 9 tests performed. The records shall include the date, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

c. **NO_X and SO_2**

The owner or operator shall calculate and record the *plant-wide* consecutive 12-

month emissions of NO_X and SO_2 for each month in the reporting period.

d. **HAP**

i. For each HAP emission point, the owner or operator shall monitor and maintain records of the monthly throughput of each HAP-containing raw material and the HAP content. HAP content in both base metal form and compound form shall be kept for HAP compounds.

ii. The owner or operator shall monthly calculate and record the *plant-wide* consecutive 12-month emissions of each single HAP and total HAP for each month in the reporting period.

iii. The owner or operator must determine the sum of metal HAP emissions from all metal HAP process vents within a CMPU subject to 40 CFR 63 Subpart VVVVVV, except you are not required to determine the annual emissions if you control the metal HAP process vents within a CMPU in accordance with Table 4 of Subpart VVVVVV or if you determine your total metal HAP usage in the process unit is less than 400 lb/yr. To determine the mass emission rate you may use process knowledge, engineering assessment, or test data. You must keep records of the emissions calculations. (40 CFR 63.11495(f)(1))

iv. If your current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to this subpart are less than 400 lb/yr, then you must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lb/yr or more, then you must be in compliance with one of the options for metal HAP process vents in Table 4 of Subpart VVVVVV upon initiating operation under the new operating conditions. You must keep records of all recalculated emissions determinations. (40 CFR 63.11495(f)(2))

v. For an existing source subject to the HAP metals emission limits specified in Table 4 of Subpart VVVVVV, the owner or operator must prepare a monitoring plan containing the information in the following paragraphs. The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times. You must keep records of monitoring results to demonstrate continuous compliance. (40 CFR 63.11495(f)(3)(i))

1) A description of the device;
2) Results of a performance test or engineering assessment conducted in accordance with § 63.11495(f)(3)(ii) verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart;
3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the

manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).

4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and

5) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.

vi. *Recordkeeping*. The owner or operator must maintain files of all information required by this subpart for at least 5 years following the date of each occurrence according to the requirements in §63.10(b)(1). If you are subject, you must comply with the recordkeeping and reporting requirements of §63.10(b)(2)(iii) and (vi) through (xiv), and the following applicable requirements for each CMPU subject to this Subpart VVVVVV. (40 CFR 63.11501(c)(1))

1) Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in §63.11495(a)(5). (§63.11501(c)(1)(i))

2) Records of small heat exchange system inspections, demonstrations of indications of leaks that do not constitute leaks, repairs, and reasons for any delay in repair as specified in §63.11495(b). (§63.11501(c)(1)(ii))

3) Records of metal HAP emission calculations as specified in §63.11496(f)(1) and (2). If total uncontrolled metal HAP process vent emissions from a CMPU subject to this subpart are estimated to be less than 400 lb/yr, also keep records of either the number of batches per month or operating hours, as specified in §63.11496(f)(2). (§63.11501(c)(1)(v))

4) Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with this subpart that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. (§63.11501(c)(1)(vii))

5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (§63.11501(c)(1)(viii))

e. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally-acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases and emissions exceed de minimis levels as a result of this change.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$, NO_X and SO_2**

The owner or operator shall report the *plant-wide* consecutive 12-month emissions of all air pollutants for each month in the reporting period.

b. **Opacity**

i. Any deviation from the requirement to perform or record the required monthly visible emissions surveys or Method 9 tests.

ii. The number, date, and time where visible emissions were observed and the results of the Method 9 test performed.

iii. Identification of all periods of exceeding the opacity standard.

iv. Description of any corrective action taken for each exceedance.

c. **HAP**

i. The owner or operator shall report the *plant-wide* consecutive 12-month emissions of each single HAP and total HAP for each month in the reporting period. HAP compounds shall be reported in terms of the HAP compound.

ii. *Semiannual Compliance Reports*. The owner or operator must submit semiannual compliance reports that contain the information specified in the following paragraphs, as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in § 63.11501(d)(1) through (8). (40 CFR 63.11501(d))

1) *Deviations*. You must clearly identify any deviation from the requirements of this subpart. (§63.11501(d)(1))

2) *Delay of leak repair*. You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gal/min: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired. (§63.11501(d)(3))

3) *Process change*. You must report each process change that affects

a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in §63.11501(b). (§63.11501(d)(4))

4) *Overlapping rule requirements*. Report any changes in the overlapping provisions with which you comply. (§63.11501(d)(6))

5) *Malfunctions*. If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during a malfunction of an affected source to minimize emissions in accordance with §63.11495(d), including actions taken to correct a malfunction. (§63.11501(d)(8))

d. **TAC**

Within 6 months of a change of a raw material as described in S2.e.ii., the owner or operator shall submit the re-evaluated EA demonstration to the District.

S4. **Testing** (Regulation 2.16, Section 4.1.9)

a. **PM/PM_{10}/$PM_{2.5}$**

i. Once during the permit term, the owner or operator shall perform the following testing.

1) An EPA Reference Method 5 performance test within +/- 10% of maximum production on the outlet and inlet of each representative baghouse and cyclone at Clariant South Plant; and

2) A capture efficiency test using EPA guidelines.

ii. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.

iii. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.

iv. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

b. **HAP**

For an existing source subject to the HAP metals emission limits specified in Table 4 of Subpart VVVVVV, you must comply with the initial compliance and monitoring requirements in §63.11496(f)(3)(i) through (iii). You must keep records of monitoring results to demonstrate continuous compliance. (40 CFR 63.11496(f)(3))

i. You must prepare a monitoring plan containing the information in §63.11496(f)(3)(i)(A) through (E). The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times. (40 CFR 63.11496(f)(3)(i))

1) A description of the device;
2) Results of a performance test or engineering assessment conducted in accordance with S4.b.ii. verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart;
3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).
4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and
5) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.

ii. You must conduct a performance test or an engineering assessment for each CMPU subject to a HAP metals emissions limit in Table 4 to this subpart and report the results in your Notification of Compliance Status (NOCS). Each performance test or engineering assessment must be conducted under representative operating conditions, and sampling for each performance test must be conducted at both the inlet and outlet of the control device. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods specified in S4.b.iii., and, either no process changes have been made since the test, or, if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. (40 CFR 63.11496(f)(3)(ii))

iii. If you elect to conduct a performance test, it must be conducted according to requirements in §63.11410(j)(1). As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of PM, you may use Method 29 in 40 CFR 60, appendix A-8 to determine the

concentration of HAP metals. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM is equal to or greater than 95 percent. (40 CFR 63.11496(f)(3)(iii))

Source-Wide Comments

1. Clariant Corp. – Louisville South Plant emits the following TACs subject to the STAR program (Regulation 5.21): Chromium^{hexavalent} & chromium compounds (Cr(VI)), Chromium^{trivalent} & chromium compounds (Cr(III)), Nickel & nickel compounds (Ni), Ammonia (NH_3), Cobalt & cobalt compounds (Co), Copper & copper compounds (Cu), Hydrochloric acid (hydrogen chloride) (HCl), Manganese & manganese compounds (Mn), Nitric acid (HNO_3), Sulfuric acid (H_2SO_4), Antimony & antimony compounds (Sb) and Radon & other radionuclides (U). The emissions from many emission units are de minimis with control devices, resulting in the requirement to operate the control devices to maintain the de minimis status of those emission units.

   Clariant determined the environmental acceptability for TAC emissions that were not de minimis: Cr(III), Cr(VI), Ni, NH_3, Co, Mn, and HNO_3. The source-wide cancer risk (R_C) of 6.51 on industrial property is less than the industrial EAG_c of 38.0 for all TACs from new and modified processes and process equipment and 75.0 for all TACs from all processes and process equipment. The source-wide R_C of 1.92 is less than the EAG_c of 3.8 for all TACs from new and modified processes and process equipment and 7.5 for all TACs from all processes and process equipment. The source-wide industrial hazard quotient (HQ) for cobalt, the highest emitting TAC, of 2.64 is less than the industrial EAG_{NC} of 3.0 for each individual TAC from all processes and process equipment. The source-wide HQ for cobalt, the highest emitting TAC, of 0.97 is equal to the EAG_{NC} of 1.0 for each individual TAC from all processes and process equipment.

EU	TAC	Risk		HQ	
		Unadjusted (Process $EAG_C \leq 1.0$)	**Industrial (Process $EAG_C \leq 10.0$)**	**Unadjusted (Process $EAG_{NC} \leq 1.0$)**	**Industrial (Process $EAG_{NC} \leq 3.0$)**
101-S01	Co	--	--	0.25	0.64
	Ni	0.39	1.45	0.030	0.11
101-S02	Co	--	--	0.70	1.98
	Mn	--	--	0.22	0.78
	Ni	0.83	3.06	0.063	0.23
101-S13	Co	--	--	0.022	0.029
101-S15	Cr(III)	--	--	0.081	0.25
101-S16	NH_3	--	--	0.054	0.047
101-S20	HNO_3	--	--	0.087	0.44
102-S38	NH_3	--	--	0.033	0.028
102-S30	Ni	0.24	0.95	0.018	0.072
102-S31	Ni	0.13	0.29	0.010	0.022
101-S22	Cr(VI)	0.17	0.38	0.002	0.004
101-S29	Cr(VI)	0.17	0.38	0.002	0.004
Plant-wide R_C*:		1.92	6.51	--	--
Highest Plant-wide HQ for single TAC (Cobalt):**				0.97	2.64

* Plant-wide R_C for unadjusted new and modified ≤ 3.8 and unadjusted total ≤ 7.5;

Plant-wide R_C for industrial new and modified ≤ 38.0 and industrial total ≤ 75.0

** Plant-wide HQ for unadjusted total ≤ 1.0; plant-wide HQ for industrial total ≤ 3.0

2. Clariant submitted a timetable for completion of the testing on May 30, 2013.

EU 101-S01 and 101-S02: Mixing System; mixing of wet metal oxides with various additives

101-S01: #1 Mixing System
101-S02: #2 Mixing System

101-S01 and 101-S02 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S01 and 101-S02 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S01	T-101-S01-001	Mixer Tank, 500 gal	1993	5.21	NA	NA
	T-101-S01-002	Mixer Scale Tank	1993	7.08, 5.21	NA	NA
	T-101-S01-003	Mixer Drain Tank	1993			
	T-101-S01-004	Aisle Traveling Tank	1993			
	MX-101-S01-001	#1 Mixer	1993	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-NOX-119	S-101-NOX-015
101-S02	DD-101-S02-001	Drum Dumper	1993			
	H-101-S02-001	Mixer Feed Hopper	1993			
	MX-101-S02-001	#2 Mixer	1993			
	T-101-S02-001	Mixer Tank, 120 gal	1993	7.08, 5.21	NA	NA
	T-101-S02-002	Mixer Scale/Drain Tank, 120 gal	1993	7.08, 5.21	NA	NA
	T-101-S02-004	Nitrate Tank, 120 gal	1993	5.21	NA	NA

101-S01 and 101-S02 Control Devices

Control ID	Description
DC-101-NOX-119	Baghouse (99.343%), Mikro-Pulsaire, Model 36S8-30

101-S01 and 101-S02 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the PM emissions to exceed the following limits. (Regulation 7.08, section 3.1.2) (See Comment 1.)

EU	Emission Point	Emission Limit (lb/hr)
101-S01	T-101-S01-002, T-101-S01-003, T-101-S01-004	2.34
	MX-101-S01-001	2.43
101-S02	DD-101-S02-001, H-101-S02-001, MX-101-S02-001	2.43
	T-101-S02-001, T-101-S02-002	2.34

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. See Source-Wide Specific Conditions. (See Comment 3.)

ii. The processing rate of cobalt-containing raw materials shall not exceed 800 lb/hr.

iii. The processing rate of manganese-containing raw materials shall not exceed 250 lb/hr.

e. **Control Device Operation**

The owner or operator shall operate and maintain DC-101-NOX-119 at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and DC-101-NOX-119 was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **HAP**

See Source-Wide Specific Conditions.

c. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

d. **TAC**

i. For any period of time when the process was operating and DC-101-NOX-119 was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-NOX-119 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop across DC-101-NOX-119 at least once during each operating day to ensure it is maintained between 0.05 and 6.0" w.c.

iii. For any period of operating outside the established pressure drop range for DC-101-NOX-119, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control device DC-101-NOX-119 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and DC-101-NOX-119 was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **HAP**

See Source-Wide Specific Conditions.

c. **Opacity**

There are no reporting requirements for this EU.

d. **TAC**

i. Identification of all periods when a process was operating and DC-101-NOX-119 was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-NOX-119, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S01 and 101-S02 Comments

1. With the exception of MX-101-S02-001 which meets the standard uncontrolled, the potential controlled PM emissions are below the hourly emission standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. Except where a tier 4 analysis is noted, the potential TAC emissions for the emission points in the table below are less than the de minimis levels in Regulation 5.21, with the listed levels of control.

EU	Emission Point	NH_3	Co	Cu	Mn	Ni	HNO_3
101-S01	MX-101-S01-001	--	Tier 4	1st	1st	Tier 4	--
	T-101-S01-001	--	--	--	--	--	*
	T-101-S01-002, T-101-S01-003 and T-101-S01-004	*	--	--	--	--	*
101-S02	DD-101-S02-001 and H-101-S02-001	--	Tier 4	1st	Tier 4	Tier 4	--
	MX-101-S02-001	--	Tier 4	1st	1st	Tier 4	--
	T-101-S02-001	*	--	--	--	--	*
	T-101-S02-002 and T-101-S02-004	--	--	--	--	--	*

*This emission point can meet the de minimis value without a control device.

Because the potential controlled emissions of cobalt and nickel from EP MX-101-S01-001, DD-101-S02-001, H-101-S02-001 and MX-101-S02-001 and manganese from EP DD-101-S02-001 and H-101-S02-001 are above the de minimis levels, the source performed a Tier 4 analysis, resulting in the following risks and hazard quotients.

EU	TAC	Location	Risk	Status	HQ	Status
101-S01	Co	industrial	--	--	0.85	< 3.0
		unadjusted	--	--	0.33	< 1.0
	Ni	industrial	1.45	< 10.0	0.11	< 3.0
		unadjusted	0.39	< 1.0	0.030	< 1.0
101-S02	Co	industrial	--	--	1.98	< 3.0
		unadjusted	--	--	0.70	< 1.0
	Ni	industrial		< 10.0	0.23	< 3.0
		unadjusted		< 1.0	0.063	< 1.0
	Mn	industrial		< 10.0	0.78	< 3.0
		unadjusted		< 1.0	0.22	< 1.0

4. There are no air emissions associated with the mixer discharge hopper H-101-S01-001, mixer blow tank T-101-S02-003, or discharge hopper H-101-S02-002, which process wet material.

EU 101-S03 and 101-S14: Mixing and weighing of raw materials

101-S03: #3 Mixing System; wet mixing of metal oxide materials with various additives
101-S14: Central Weigh Up System; raw material weighing

101-S03 and 101-S14 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S03 and 101-S14 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S03	H-101-S03-001	South Mixer Hopper,	2007	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S03-123 FIL-101-S03-001	S-101-S03-001
	DD-101-S03-001	South Mixer Drum Dumper	2007			
	MX-101-S03-001	South Mixer Feeder/Mixer	2007			
	CV-101-S03-001	Screw Conveyor	2007			
	T-101-S03-001	Scale Tank, 120 gal	2007	7.08, 5.21	NA	NA
	T-101-S03-002	Liquid Additive Tank, 1000 gal	2007			
101-S14	DD-101-S14-001/H-101-S14-001	Drum Dumper/Hopper	1998	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S03-123 FIL-101-S03-001	S-101-S03-001
	PD-101-S14-001	Product Drum	1998			
	H-101-S14-002	Hopper on Scale	1998	7.08, 5.21		

101-S03 and 101-S14 Control Devices

Control ID	Description
DC-101-S03-123	Baghouse (99.343%), Flex Kleen, Model 58VBS-36
FIL-101-S03-001	HEPA Filter (99.97%), Torit Donaldson, Model Ultraweb

101-S03 and 101-S14 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb/ hr from each emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulation 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-S03-123 and FIL-101-S03-001 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-101-S03-123	1.5 – 6.5
FIL-101-S03-001	0.05 – 6.0

iii. For any period of operating outside the established pressure drop range for DC-101-S03-123 or FIL-101-S03-001, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-S03-123 or FIL-101-S03-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-S03-123 or FIL-101-S03-001 during a reporting period, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, compliance report must include a statement to that effect.

101-S03 and 101-S14 Comments

1. The potential controlled hourly PM emissions after the first control device meet the applicable emission standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential TAC emissions are below the de minimis levels in Regulation 5.21. The control devices needed are listed in the table below.

EU	EP	NH_3	Co	Cu	Mn	Ni	HNO_3
101-S03	T-101-S03-001	*	--	--	--	--	*
	T-101-S03-002	*	--	--	--	--	*
	H-101-S03-001	--	2nd	1st	2nd	2nd	--
	DD-101-S03-001	--	2nd	1st	2nd	2nd	--
	MX-101-S03-001	--	2nd	1st	1st	2nd	--
	CV-101-S03-001	--	2nd	1st	1st	2nd	--
101-S14	DD-101-S14-001/H-101-S14-001	--	--	*	--	2nd	--
	PD-101-S14-001	--	--	*	--	2nd	--

*This emission point can meet the de minimis value without a control device.

3. There are no air emissions associated with H-101-S03-002 (discharge hopper) or PD-101-S03-001 (product drum), which process wet material. There are also no air emissions from T-101-S03-003 (blow tank) which pressurizes nitrate solutions from T-101-S03-001 and T-101-S03-002 that are sprayed into MX-101-S03-001 and is fully enclosed.

EU 101-S06, 101-S07, 101-S08 and 101-S09: Box Dryers, low temperature drying of catalysts

101-S06, 101-S07, 101-S08 and 101-S09 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	1, 2, 3, 4 and 5

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
NA	NA	NA

101-S06, 101-S07, 101-S08 and 101-S09 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S06	HT-101-NOX-006	Dryer #6, 0.645 MM Btu/hr	1956	6.09	ED-101-NOX-007 V-101-NOX-001	S-101-NOX-013
101-S07	HT-101-NOX-007	Dryer #7, 0.645 MMBtu/hr	1956	6.09		
101-S08	HT-101-NOX-008	Dryer #8, 0.645 MMBtu/hr	1956	6.09		
101-S09	HT-101-NOX-009	Dryer #9, 0.645 MMBtu/hr	1956	6.09		

101-S06, 101-S07, 101-S08 and 101-S09 Control Devices

EU	Control ID	Description
101-S06, 101-S07, 101-S08 and 101-S09	ED-101-NOX-007	Eductor/Venturi Scrubber (75% (NO_X)), Koertrol, Model 7010
	V-101-NOX-001	Packed-bed scrubber (75% (NO_X)), GH Hicks/NST Metals, Model CC-NOX-II

101-S06, 101-S07, 101-S08 and 101-S09 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **NO_X**

i. The owner or operator shall not allow or cause the emissions of NO_X to exceed 300 ppmv, expressed as NO_2. (Regulation 6.09, section 4.1) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions.

c. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, and 6.09, section 4.1)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **NO_X**

For any period of time when the process was operating and an associated NO_X control device was not operating, the owner or operator shall maintain the following records:

i. The duration;

ii. The process throughput during the control device downtime;

iii. The NO_X emissions (ppmv); and

iv. Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

b. **Opacity**

See Source-Wide Specific Conditions.

c. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair

and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For each control device, the owner or operator shall monitor and record the performance indicator range at least once during each operating day to ensure it is maintained within the operating ranges as shown in the table below.

Control ID	Operating Range
ED-101-NOX-007	Pressure: 40 – 60 PSI
V-101-NOX-001	Pressure Drop: 2 – 10 " WC Top Water Flow Rate ≥ 5 gpm Middle Water Flow Rate ≥ 5 gpm Bottom Water Flow Rate ≥ 5 gpm

iii. For any period of operating outside the established performance indicator range for ED-101-NOX-007 and/or V-101-NOX-001, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control device ED-101-NOX-007 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **NO_X**

Identification of all periods when a process was operating and an associated NO_X control device was not operating, including the information recorded in S2.a. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

b. **Opacity**

See Source-Wide Specific Conditions.

c. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for each NO_X control device during a reporting period, including

the information recorded in S2.c.iii. If there were no excursions during the reporting period, the compliance report must include a statement to that effect.

101-S06, 101-S07, 101-S08 and 101-S09 Comments

1. For HT-101-NOX-006, HT-101-NOX-007, HT-101-NOX-008 and HT-101-NOX-009, the potential controlled emissions of NO_X meet the applicable emission standard in Regulation 6.09 after the first control device.

2. There are no particulate emissions from the dryers since the velocities across the trays are too low to generate emissions.

EU 101-S11 and 101-S12: Dryers, drying of wet, formed and loose catalysts

101-S11 and 101-S12 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
6.10	Standard of Performance for Existing Process Gas Streams	1, 2, 4 and 6
7.08	Standards of Performance for New Process Operations	1, 2, 3 and 4
7.09	Standard of Performance for New Process Gas Streams	1, 2 and 4
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S11 and 101-S12 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S11	HT-101-NOX-001	Dryer #1, 1.2 MM Btu/hr	1956	6.09, 6.10, 5.21, 40 CFR 63 Subpart VVVVVV	ED-101-NOX-001 or 002 V-101-NOX-001	S-101-NOX-013
	H-101-S11-001	Discharge Hopper	1957	6.09, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-NOX-120 FIL-101-NOX-120	S-101-NOX-014
	PD-101-S11-001	Product Drumming	1957			
101-S12	HT-101-NOX-002	Dryer #2, 0.50 MMBtu/hr	1981	7.08, 7.09, 5.21, 40 CFR 63 Subpart VVVVVV	ED-101-NOX-004 or 005 V-101-NOX-001	S-101-NOX-013
	H-101-S12-001	Discharge Hopper	1981	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-NOX-120 FIL-101-NOX-120	S-101-NOX-014
	PD-101-S12-001	Product Drumming	1981			

101-S11 and 101-S12 Control Devices

Control ID	Description
ED-101-NOX-001	Eductor (95% (PM), 75% (NO_X)), Schutte & Koerting Model 9010 8 inch
ED-101-NOX-002	Eductor (95% (PM), 75% (NO_X)), Schutte & Koerting Model 9010 8 inch
ED-101-NOX-004	Eductor (95% (PM), 75% (NO_X)), Schutte & Koerting Model 9010 8 inch
ED-101-NOX-005	Eductor (95% (PM), 75% (NO_X)), Schutte & Koerting Model 9010 8 inch
V-101-NOX-001	Packed-bed scrubber (95% (PM), 75% (NO_X)), GH Hicks/NST Metals, Model CC-NOX-II
DC-101-NOX-120	Baghouse (99.786%), Opti Flow, Model 1672385-1

Control ID	Description
FIL-101-NOX-120	HEPA filter (99.97%), Torit, Model Ultra Lok

101-S11 and 101-S12 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. For EP HT-101-NOX-001, H-101-S11-001 and PD-101-S11-001, the owner or operator shall not allow or cause the PM emissions to exceed 2.58 lb/hr from each emission point. (Regulation 6.09, section 3.2) (See Comment 1.)

ii. For EP HT-101-NOX-002, H-101-S12-001 and PD-101-S12-001, the owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

iii. See Source-Wide Specific Conditions.

b. **Opacity**

The owner or operator shall not allow or cause visible emissions to equal or exceed twenty percent (20%) opacity. (Regulation 6.09, section 3.3.1 and Regulation 7.08, section 3.1.1))

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 2.)

e. **NO_X**

i. For EP HT-101-NOX-001 and HT-101-NOX-002, the owner or operator shall not allow or cause the emissions of NO_X to exceed 300 ppmv, expressed as NO_2. (Regulation 6.09, section 4 and Regulation 7.08, section 4) (See Comment 3.)

ii. See Source-Wide Specific Conditions.

f. **SO_2**

i. From EP HT-101-NOX-001, the owner or operator shall not allow or cause the emissions of SO_2 to exceed 2,000 ppmv at 0% oxygen. (Regulation 6.10, section 4) (See Comment 4.)

ii. From EP HT-101-NOX-002, the owner or operator shall not allow or cause the emissions of SO_2 to exceed 28.63 grains per 100 dscf at 0% excess oxygen unless the resulting emission of sulfur dioxide is less than 40 tons per year and a modeling demonstration pursuant to Regulation 2.11 is made showing attainment and maintenance of the NAAQS for sulfur dioxide. (Regulation 7.09, section 4) (See Comment 4.)

g. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulation 2.04, 2.05, 5.01, 5.21, 6.09 section 4, and 7.08 section 4)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$, Opacity, HAP, SO_2**

See Source-Wide Specific Conditions.

b. **TAC**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

c. **NO_X**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The NO_X emissions (lb/hr); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

d. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of ED-101-NOX-001, ED-101-NOX-002, ED-101-NOX-004, ED-101-NOX-005, V-101-NOX-001, DC-101-NOX-120 and FIL-101-NOX-120 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For each control device, the owner or operator shall monitor and record the performance indicator range at least once during each operating day to ensure it is maintained within the specified operating ranges as shown in the table below.

Control ID	Operating Range
DC-101-NOX-120	Pressure Drop: 1.5 - 4.5" w.c.
FIL-101-NOX-120	Pressure Drop: 0.1 - 6.5" w.c.
ED-101-NOX-001, ED-101-NOX-002, ED-101-NOX-004, ED-101-NOX-005	Pressure: 40 - 130 PSI
V-101-NOX-001	Pressure Drop: 2 - 10" WC Top Water Flow Rate ≥5 gpm Middle Water Flow Rate ≥5 gpm Bottom Water Flow Rate ≥5 gpm

iii. For any period of operating outside the established performance indicator range for DC-101-NOX-120, FIL-101-NOX-120, ED-101-NOX-001, ED-101-NOX-002, ED-101-NOX-004, ED-101-NOX-005 and/or V-101-NOX-001, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-NOX-120, ED-101-NOX-001, ED-101-NOX-002, ED-101-NOX-004, ED-101-NOX-005, or V-101-NOX-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$, Opacity, HAP, SO_2**

See Source-Wide Specific Conditions.

b. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.b.i. If the control devices were operating at all times the processes were operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

c. **NO_X**

i. Identification of all periods when a process was operating and an associated control device was not operating, including the information recorded in S2.c.i. If the control devices were operating at all times the processes were operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

d. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for ED-101-NOX-001, ED-101-NOX-002, ED-101-NOX-004, ED-101-NOX-005 or V-101-NOX-001 during a reporting period, including the information recorded in S2.d.iii. If there are no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S11 and 101-S12 Comments

1. The potential uncontrolled PM emissions cannot exceed the applicable emission standard.

2. The potential controlled TAC emissions are below the de minimis levels in Regulation 5.21. The control devices needed are listed in the table below.

Emission Point	Co	Cr(VI)	Cu	Mn	Ni	HCl
HT-101-NOX-001	2nd	2nd	2nd	2nd	2nd	2nd
H-101-S11-001	2nd	2nd	1st	1st	2nd	--
PD-101-S11-001	2nd	2nd	1st	1st	2nd	--
HT-101-NOX-002	2nd	2nd	*	2nd	2nd	1st
H-101-S12-001	1st	1st	*	1st	1st	*
PD-101-S12-001	1st	1st	*	1st	1st	*

* This emission point can meet the de minimis value without a control device.

3. For EP HT-101-NOX-001 and HT-101-NOX-002, the potential controlled emissions of NO_X are below the applicable emission standard.

4. For EP HT-101-NOX-001 and HT-101-NOX-002, the potential uncontrolled emissions of SO_2 are below the applicable emission standard.

EU 101-S13: Catalyst System; precipitation of cobalt catalyst in lump form from solution

101-S13 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S13 Emission Points

Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
T-101-S13-001	Tank	1985	5.21	NA	NA
T-101-S13-002	Tank, 2000 gal	1985	7.08	NA	NA
DD-101-S13-001	Drum Dumper	1985	7.08, 5.21	ME-101-S13-001, SC-102-S34-100	S-102-S34-001
T-101-S13-003	Tank, 3670 gal	1985	5.21		
T-101-S13-004	Tank, 5870 gal	1985			
T-101-S13-005	Press Filtrate Tank, 4500 gal	1985			
T-101-S13-006	NH_3 Recovery Tank, 5000 gal	1985			

101-S13 Control Devices

Control ID	Description
ME-101-S13-001	Mist Eliminator (95% (PM), 75% (NH_3)), SCI
SC-102-S34-100	Wet Scrubber (95% (PM), 75% (NH_3), two stage), SCI, Model DWG-E-102-AR2-31

101-S13 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. For EP T-101-S13-002 and DD-101-S13-001, the owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2, and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of ME-101-S13-001 and SC-102-S34-100 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For SC-102-S34-100, the owner or operator shall monitor and maintain records of the inlet water flow rate at least once during each operating day to ensure it is at least 10 gpm.

iii. For any period of operating outside the established performance indicator range for SC-102-S34-100, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the

process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for each control device during a reporting period, including the information recorded in S2.e.iii. If there were no excursions during the reporting period, the compliance report must include a statement to that effect.

101-S13 Comments

1. The potential controlled PM emissions from EP DD-101-S13-001 meet the applicable emission standard in Regulation 7.08 after the first control device. The potential uncontrolled PM emissions from EP T-101-S13-002 meet the applicable emission standard.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential controlled TAC emissions are below the de minimis levels in Regulation 5.21. The control devices needed are listed in the table below.

Emission Point	Co	NH_3
DD-101-S13-001	3rd	--
T-101-S13-001	--	*
T-101-S13-003	--	3rd
T-101-S13-004	--	3rd
T-101-S13-006	--	2nd

* This emission point can meet the de minimis value without a control device.

3. There are no air emissions associated with T-101-S13-005 (press filtrate tank), FP-101-S13-001 (filter press), R-101-S13-001 (dryer racks), or CV-101-S13-001 (conveyer), which process wet material.

EU 101-S15: 101-S15 Catalyst System; Catalyst production including mixing, drying, milling, calcining, screening, and packaging

101-S15 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3 and 4
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S15 Emission Points

EP	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
DD-101-S15-001	South Drum Dumper	1982	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S15-112	S-101-S15-001
MX-101-S15-001	South Mixer	1982			
DD-101-S15-002	North Drum Dumper	1982			
MX-101-S15-002	North Mixer	1982			
DR-101-S15-001a	Dryer Feed End, 4.4 MMBtu/hr	1982	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S15-111	S-101-S15-002
DR-101-S15-001b	Dryer Discharge End, 4.4 MM Btu/hr	1982		DC-101-S15-110	S-101-S15-003
DD-101-S15-003	Drum Dumper	1982	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S15-114	S-101-S15-009
H-101-S15-003	Hopper #3	1982			
FD-101-S15-002	Feeder	1982			
CV-101-S15-002	Conveyor	1982			
H-101-S15-004	Feed Hopper	1982			
PD-101-S15-001	Product/Fines Drum	1982			
HT-101-S15-001	#9 Calciner, 1 MMBtu/hr	1982			
VS-101-S15-001	Screener	2000			
PD-101-S15-002	Fines Drum	1990			
H-101-S15-006/CV-101-S15-005/PD-101-S15-004	Weigh Out Station (Supersack Hopper/Screw Conveyor/Portable Product Drum)	2007	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S15-113	S-101-S15-008
DD-101-S15-004	Drum Dumper	1990	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S15-113	S-101-S15-008
H-101-S15-005	Screener Feed Hopper	1982			
M-101-S15-002	Hammermill	1982			
M-101-S15-006	Hopper from SuperSack to Drum				

EP	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
PD-101-S15-003	Milled Fines Drum	1993			
VS-101-S15-002	Screener	1993			

101-S15 Control Devices

Control ID	Description
DC-101-S15-110	North Dust Collector, Baghouse (99.055%), Flex-Kleen, Model 100-WRBC-80-III
DC-101-S15-111	South Dust Collector, Baghouse (99.343%), Flex-Kleen, Model 100-WRBC-80-III
DC-101-S15-112	Baghouse (99.343%), Flex-Kleen, Model 100-WRBC-80-III
DC-101-S15-113	Baghouse (99.786%), Mikro Pulsaire, Model CF-9
DC-101-S15-114	Baghouse (99.055%), Flex-Kleen, Model 58-CTBC-18-III

101-S15 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the PM emissions to exceed the following limits. (Regulation 7.08, section 3.1.2) (See Comment 1.)

Emission Point	Emission Limit (lb/hr)
H-101-S15-005, M-101-S15-002	2.34
H-101-S15-006, CV-101-S15-005, PD-101-S15-004, DD-101-S15-002, DD-101-S15-003, DD-101-S15-004, CV-101-S15-002, DR-101-S15-001, FD-101-S15-002, H-101-S15-003, DD-101-S15-001, VS-101-S15-002, PD-101-S15-001, HT-101-S15-001, MX-101-S15-001, MX-101-S15-002, PD-101-S15-002, PD-101-S15-003, VS-101-S15-001, H-101-S15-004	3.59

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **NO_X**

i. For EP HT-101-S15-001 and DR-101-S15-001, the owner or operator shall not allow or cause NO_X emissions to exceed 300 ppmv, expressed as NO_2 from each emission point. (See Comment 4.)

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **NO_X**

See Source-Wide Specific Conditions.

e. **TAC**

i. For any period of time when the process was operating and an associated control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-S15-110, DC-101-S15-111, DC-101-S15-112, DC-101-S15-113, and DC-101-S15-114 for signs of damage, air leakage, corrosion, or other equipment defects, and repair

and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-101-S15-110, DC-101-S15-111, DC-101-S15-112	0.05 – 6.0
DC-101-S15-113	1.0 – 6.0
DC-101-S15-114	0.5 – 6.0

iii. For any period of operating outside the established pressure drop range for DC-101-S15-110, DC-101-S15-111, DC-101-S15-112, DC-101-S15-113, and/or DC-101-S15-114, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-S15-110, DC-101-S15-111, DC-101-S15-112, DC-101-S15-113 or DC-101-S15-114 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control devices were operating at all times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated control device was not operating, including the information recorded in S2.e.i. If the control devices were operating at all times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **NO_X**

See Source-Wide Specific Conditions.

f. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-S15-110, DC-101-S15-111, DC-101-S15-112, DC-101-S15-113 or DC-101-S15-114, including the information recorded in S2.f.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S15 Comments

1. The potential controlled PM emissions after the first control device are below the applicable standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. All potential controlled trivalent chromium emissions are below the de minimis levels in Regulation 5.21, with the exception of the Weigh Out Station (H-101-S15-006, CV-101-S15-005 and PD-101-S15-004). Therefore, the source performed a Tier 3 analysis, resulting in the following hazard quotients.

TAC	Location	Risk	Status	HQ	Status
Cr(III)	industrial	--	--	0.25	< 3.0
	unadjusted	--	--	0.081	< 1.0

4. The potential uncontrolled NO_X emissions are below the applicable standard.

5. There are no air emissions associated with M-101-S15-001 (Kahl mill) or H-101-S15-001 (feed hopper, also called circle feeder, FD-101-S15-001) which process wet material. There are also no air emissions from the potassium carbonate tanks (T-101-S15-001 and T-101-S15-002).

EU 101-S16: Precipitating, spray drying and calcining metal catalysts

101-S16 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	1, 2, 3 and 5
7.08	Standards of Performance for New Process Operations	1, 2, 3 and 4
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S16 Emission Points

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
T-102-S38-010	South Tank 10	1970	5.21	NH_3 Recovery System (HE-102-S34-100, 101/102/103 V-102-S34-100)	S-102-S34-001
T-102-S38-012	North Tank 12	1970			
T-102-S38-011	South Tank 11	1970	6.09	SC-102-S34-100	S-102-S34-001
T-102-S38-013	North Tank 13	1970			
T-102-S38-014	Raw Material Tank 14	1970	6.09	NA	NA
T-102-S38-016	Raw Material Tank 16	1970			
T-102-S38-017	Raw Material Tank 17	1970			
SD-101-S16-001	Dryer	1958	6.09, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S16-124 FIL-101-S16-124	S-101-S16-001
HT-101-S16-001	Calciner #3, 3 MMBtu/hr natural gas-fired	1995	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S16-122 FIL-101-S16-122	S-101-S16-002
T-101-S16-101	Feed Storage Tank	1993		DC-101-S16-117 FIL-101-S16-117	S-101-S16-004
T-101-S16-102	Feed Storage Tank	1993			
PD-101-S16-001	Product Drum	1993			

101-S16 Control Devices

Control ID	Description
SC-102-S34-100	Wet scrubber (95% (PM), 75% (NH_3), two stage), SCI, Model DWG-E-102-AR2-31
HE-102-S34-100	Economizer (95% (PM), 75% (NH_3)), SCI
HE-102-S34-101	Condenser (75% (NH_3)), Happy, Model 1F1016-1108-MVH
HE-102-S34-102	Condenser (75% (NH_3)), Happy, Model 1F1016-1108-MVH
HE-102-S34-103	Condenser (75% (NH_3)), Happy, Model 1F1016-1108-MVH
V-102-S34-100	Ammonia Recovery Stripper Column (95% (PM), 75% (NH_3)), Vedome Brass Co.
DC-101-S16-124	Baghouse (99.055%), Pangborn, Model M-168-8CP
DC-101-S16-122	Baghouse (99.343%), Mikro Pulsaire, Model 365530
DC-101-S16-117	Baghouse (99.933%), Meeks, Model Mott Tubes
FIL-101-S16-124	HEPA filter (99.97%), Donaldson Torit, Model Ultra Lok
FIL-101-S16-122	HEPA filter (99.97%), Donaldson Torit, Model Ultra Lok
FIL-101-S16-117	In-line vacuum filter (95%), Solberg Model CT-235P-300 C

101-S16 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. From EP T-102-S38-011, T-102-S38-013, T-102-S38-014, T-102-S38-016, T-102-S38-017 and SD-101-S16-001, the owner or operator shall not allow or cause the PM emissions to exceed 2.58 lb/hr from each emission point. (Regulation 6.09, section 3.2) (See Comment 1.)

ii. From EP HT-101-S16-001, T-101-S16-101, T-101-S16-102 and PD-101-S16-001, the owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

iii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 2.)

e. **NO_X**

i. For EP HT-101-S16-001, the owner or operator shall not allow or cause NO_X emissions to exceed 300 ppmv, expressed as NO_2. (Regulation 7.08, Section 4.1) (See Comment 3.)

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity, HAP, NO_X**

See Source-Wide Specific Conditions.

c. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

d. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-101-S16-124	1.5 – 5.0
DC-101-S16-122	0.01 – 6.0
DC-101-S16-117	3 – 28
FIL-101-S16-124	0.2 – 5.0
FIL-101-S16-122	0.01 – 6.0

Control ID	Pressure Drop (" w.c.)
FIL-101-S16-117	0.2 – 5.0

iii. For SC-102-S34-100, the owner or operator shall monitor and record the inlet water flow rate at least once during each operating day to ensure it is maintained at or above 10 gpm.

iv. For V-102-S34-100, the owner or operator shall monitor and record the outlet temperature at least once during each operating day to ensure it is maintained between 208 and 215 °F.

v. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

vi. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-S16-124, DC-101-S16-122, DC-101-S16-117 or FIL-101-S16-117 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control devices were operating at all times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

b. **Opacity, HAP, NO_X**

See Source-Wide Specific Conditions.

c. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.c.i. If the control devices were operating at all

times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

d. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device, including the information recorded in S2.d.v. If there were no excursions during the reporting period, the compliance report must include a statement to that effect.

101-S16 Comments

1. The potential controlled hourly PM emissions are below the applicable emission standard for EP SD-101-S16-001, HT-101-S16-001, PD-101-S16-001, T-101-S16-101 and T-101-S16-102 after the first control device. The potential uncontrolled hourly PM emissions are below the applicable emission standard for EP T-102-S38-011, T-102-S38-013, T-102-S38-014, T-102-S38-016 and T-102-S38-017.

2. The potential uncontrolled NO_X emissions are below the applicable standard.

3. The potential controlled nickel emissions after the final control device are below the de minimis levels in Regulation 5.21. The potential controlled ammonia emissions from T-102-S38-010 and T-102-S38-012 are above the de minimis levels in Regulation 5.21. Therefore, a tier 3 analysis was completed, resulting in an industrial hazard quotient of 0.047 (less than the goal of 3.0) and an unadjusted hazard quotient of 0.054 (less than the goal of 1.0).

4. Conveyors CV-101-S16-002, CV-101-S16-005, CV-101-S16-006 and CV-101-S16-001 are completely enclosed and not emissions points. The North Decant Tank T-102-S38-020, and the pH Adjustment Tank T-102-S38-021 contain slurried intermediate product in water and emit no regulated pollutants. The North Backup Press Feed Tank T-101-S16-028 and the North Slop Tank T-101-S16-029, are wet slurry tanks which do not emit regulated pollutants. The Mixer MX-101-S16-002, North Filter Press FIL-101-S16-003, North Filter Press FP-101-S16-004, and the Filtrate Separators (SEP-101-S16-004, SEP-101-S16-005 and SEP-101-S16-006) process wet slurry and emits no regulated pollutants.

EU 101-S17: Reaction, precipitation, washing, drying, calcining and packaging

101-S17 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S17 Emission Points

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
T-101-S17-001	HNO_3 Tank, 370 gal	1974	5.21	NA	S-101-S17-001
T-101-S17-003	NH_3 Tank, 1150 gal	1974		NA	S-101-S17-002
T-101-S17-004	Reactor Tank, 3250 gal	1974	7.08, 5.21	ED-101-S17-001 V-101-S17-001 SEP-101-S17-008	S-101-S17-011
T-101-S17-005	Reactor Condensate Tank, 350 gal	1974			
FR-101-S17-001	Filter Receiver	2000	7.08, 5.21	FIL-101-S17-001	S-101-S17-003
T-101-S17-009	Metering Tank, 5 gal	1984	5.21	NA	S-101-S17-004
T-101-S17-010	Raw Material Tank, 60 gal	1984	7.08, 5.21	NA	S-101-S17-005
FR-101-S17-002	Rework Filter Receiver	2000	7.08, 5.21	FIL-101-S17-002 FIL-101-S17-014	S-101-S17-006
T-101-S17-011	Metering Tank, 20 gal	1984	5.21	NA	S-101-S17-007
T-101-S17-012	Slurry Hold Tank, 2490 gal	1984	7.08, 5.21	BV-101-S17-001 FIL-101-S17-015	S-101-S17-013
SD-101-S17-001	Dryer #1	1957	7.08, 5.21	SEP-101-S17-001 SEP-101-S17-002 SEP-101-S17-007 SC-101-S17-001 FIL-101-S17-003 FIL-101-S17-004	S-101-S17-010
SEP-101-S17-003	Elutriator	1985	7.08, 5.21	DC-101-S17-001 DC-101-S17-002 FIL-101-S17-007 FIL-101-S17-008	S-101-S17-010
FR-101-S17-003	Filter Receiver	2005	7.08, 5.21	FIL-101-S17-012 FIL-101-S17-013	S-101-S17-009

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
H-101-S17-002	Storage Hopper/Silo, 8000 gal	1984	7.08, 5.21	DC-101-S17-002 FIL-101-S17-007 FIL-101-S17-008	S-101-S17-010
HT-101-S17-001a	Calciner #2 (Feed End)	1966	7.08, 5.21	SEP-101-S17-004 SEP-101-S17-008 ED-101-S17-002 V-101-S17-001	S-101-S17-011
HT-101-S17-001b	Calciner #2 (Combustion), 1.2 MMBTU/hr	1966		NA	S-101-S17-012
HT-101-S17-002	Calciner #2 (Discharge End)	1966	7.08, 5.21	FIL-101-S17-005 FIL-101-S17-006	S-101-S17-010
PD-101-S17-002	Product Dust Drum	1984	7.08, 5.21	FIL-101-S17-005 FR-101-S17-016	
PD-101-S17-001	Rework Drum	1984	7.08, 5.21	DC-101-S17-005 DC-101-S17-002 FIL-101-S17-007 FIL-101-S17-008	S-101-S17-010
PD-101-S17-003	Product Drum	1984	7.08, 5.21		

101-S17 Control Devices

Control ID	Description
FIL-101-S17-001	HEPA filter (99.97%), Vac-U-Max, Model 22483
FIL-101-S17-015	HEPA filter (99.97%), Donaldson Torit, Model UltraWeb
BV-101-S17-001	Bin Vent HEPA filter (99.97%), Premier Pneumatics Modulair Cartridge Bin Vent, Model UltraWeb
FIL-101-S17-002	HEPA filter (99.97%), Vac-U-Max, Model 22483
FIL-101-S17-014	HEPA filter (99.97%), Vac-U-Max, Model 22483
SEP-101-S17-001	Cyclone separator (95%), Fisher-Klosterman, Model FK-XQ-24(5)
SEP-101-S17-002	Cyclone separator (95%), Aerodyne, Model 4500 S
SEP-101-S17-003	Cyclone separator (90%), SCI, Model E101-S17
SEP-101-S17-007	Cyclone separator / Demister tank (95%)
SEP-101-S17-008	Cyclone separator (95%), Fisher-Klosterman, Model XQ-11
SC-101-S17-001	Wet Scrubber (75%), W.W. Sly, Model 135 Impinjet
FIL-101-S17-003	Pre-filter (99.786%), Libco, Model Torit Ultra-Web
FIL-101-S17-004	HEPA filter (99.97%), Libco, Model Deep Micro Fiberglass Elements
DC-101-S17-001	Baghouse (99.343%), Flex-Kleen, Model 84-BVBS-16
FIL-101-S17-013	HEPA filter (99.97%), Libco, Model HE374P Cartridge
FIL-101-S17-012	HEPA filter (99.97%), Libco, Model 375ZP Cartridge
SEP-101-S17-004	Cyclone separator (75%), Fisher-Klosterman, Model XQ-11
FIL-101-S17-005	Inline pre-filter (99.786%), Libco, Model Clark 1279220 Filter Cartridge
FIL-101-S17-006	HEPA filter (99.97%), Libco, Model Deep Micro Fiberglass Elements
DC-101-S17-002	Baghouse (99.343%), Flex-Kleen, Model 84-BVBS-25
FIL-101-S17-007	Inline pre-filter (99.786%), Libco, Model Clark 1279220 Filter Elements
FIL-101-S17-008	Cartridge filter (99.97%), Libco, Model Deep Micro Fiberglass Elements

Control ID	Description
DC-101-S17-005	Baghouse (99.786%), Torit, Model TD-162
ED-101-S17-001	Eductor /venturi (95% (PM), 75% (NO_X)), Schutte & Koerting, Model 6" Type 7010
V-101-S17-001	Packed tower wet scrubber (95% (PM), 75% (NO_X), 2 stages), Chemetron, Model CC-NOx
ED-101-S17-002	Eductor /venturi (95% (PM), 75% (NO_X)), Schutte & Koerting, Model 8" Type 7010
FR-101-S17-016	HEPA filter (99.97%), Vacumax drum vacuum

101-S17 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. For EP SD-101-S17-001, SEP-101-S17-003, T-101-S17-004, T-101-S17-005, FR-101-S17-001, T-101-S17-010, FR-101-S17-002, T-101-S17-012, PD-101-S17-001, PD-101-S17-003, PD-101-S17-002, PD-101-S17-004, H-101-S17-002, FR-101-S17-003, HT-101-S17-001, HT-101-S17-002 and DR-101-S17-001, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **NO_X**

i. For EP HT-101-S17-001, T-101-S17-004 and T-101-S17-005, the owner or operator shall not allow or cause the NO_X emissions to exceed 300 ppm by volume, expressed as NO_2. (Regulation 7.08, section 4) (See Comment 4.)

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, and 7.08 section 3.1.2)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
   1) The duration;
   2) The process throughput during the control device downtime;
   3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
   4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

   1) The duration;
   2) The process throughput during the control device downtime;
   3) The emissions of each TAC (lb/hr and lb/avg. period); and
   4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **NO_X**

i. For any period of time when EP T-101-S17-004 or HT-101-S17-001 was operating and an associated NO_X control device was not operating, the owner or operator shall maintain the following records:

   1) The duration;
   2) The process throughput during the control device downtime;
   3) The emissions of NO_X (ppmv and tons); and
   4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flow rate at least once during each operating day to ensure it is maintained at or above the operating range as shown in the table below.

Control ID	Inlet Water Flowrate
SC-101-S17-001	30
ED-101-S17-001	20
V-101-S17-001	40
ED-101-S17-002	30

iii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
FIL-101-S17-001	1.5 – 6.5
FIL-101-S17-015	2.0 – 6.0
BV-101-S17-001	2.0 – 7.0
FIL-101-S17-003	0.2 – 5.0
FIL-101-S17-004	0.01 – 5.0
DC-101-S17-001	0.2 – 2.0
FIL-101-S17-005	1.0 – 1.6
FIL-101-S17-006	0.2 – 0.8
DC-101-S17-002	1.5 – 6.5
FIL-101-S17-007	0.01 – 6.0
FIL-101-S17-008	0.01 – 5.0
DC-101-S17-005	0.1 – 0.7
V-101-S17-001	Vacuum -4 – -8

iv. The owner or operator shall monitor and record the vacuum pressure to the SEP-101-S17-004 inlet at least once during each operating day to ensure it is maintained within operating specifications.

v. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

vi. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices FIL-101-S17-001, FIL-101-S17-015, BV-101-S17-001, FIL-101-S17-003, FIL-101-S17-004, DC-101-S17-001, FIL-101-S17-005, FIL-101-S17-006, DC-101-S17-002, FIL-101-S17-007, FIL-101-S17-008, DC-101-S17-005 or V-101-S17-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control devices were operating at all times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **NO_X**

Identification of all periods when a process was operating and an associated NO_X control device was not operating, including the information recorded in S2.e.i. If the control devices were operating at all times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

f. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device including the information recorded in S2.f.v. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S17 Comments

1. For EP SD-101-S17-001, SEP-101-S17-003, T-101-S17-004, FR-101-S17-002, PD-101-S17-003, H-101-S17-002, FR-101-S17-003, the potential controlled hourly PM emissions are below the applicable emission standard in Regulation 7.08 after the first control device. For the remaining emission points, the potential uncontrolled hourly PM emissions are below the standard.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential uncontrolled nitric acid emissions from EP T-101-S17-001 and T-101-S17-004 and the potential uncontrolled ammonia emissions from EP T-101-S17-003, SD-101-S17-001, T-101-S17-004, T-101-S17-009, T-101-S17-010, FR-101-S17-002 and T-101-S17-012 are below the de minimis levels in Regulation 5.21. The potential TAC emissions of antimony and uranium are below the de minimis levels, using a Clariant derived BAC_C for uranium of 0.00065 ug/m^3. The control devices needed are listed in the table below.

Emission Point	Sb	U
SD-101-S17-001, SEP-101-S17-003 and T-101-S17-004	Final	Final
FR-101-S17-001	1st	1st
FR-101-S17-002 and T-101-S17-012	1st	Final
PD-101-S17-001	1st	1st
PD-101-S17-003	1st	Final
PD-101-S17-002	*	1st
H-101-S17-002 and HT-101-S17-001	Final	Final
FR-101-S17-003 and HT-101-S17-002	1st	Final

* This emission point can meet the de minimis value without a control device.

4. The potential controlled NO_X emissions are below the applicable emission standard of 300 ppmv in Regulation 7.08.

5. There are no air emissions associated with tank T-101-S17-002. Product Filter Press FP-101-S17-001, the Scale Tank T-101-S17-007, the Mill M-101-S17-001 and the Filter Cake Reslurry Tank T-101-S17-008 process wet slurry and emit no regulated pollutants. The Powder Pump CV-101-S17-004, Screw Feeders (CV-101-S17-002, CV-101-S17-003, CV-101-S17-005, CV-101-S17-006 and CV-101-S17-008), Cooling Screw Conveyor CV-101-S17-007 and Drag Conveyor CV-101-S17-009 are completely enclosed and not emissions points. The Dryer Hold Tanks T-101-S17-013, T-101-S17-014 and T-101-S17-015, are closed tanks containing a wet slurry solution and emit no regulated pollutants.

5. The Wash Tank T-101-S17-023, the waste sludge dryer DR-101-S17-001 and the waste drum PD-101-S17-004 were disassembled and are no longer in use.

EU 101-S18: North System; impregnating catalyst carriers with various metal ions

101-S18 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S18 Emission Points

EP	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
DD-101-S18-001/H-101-S18-001	Drum Dumper/ Hopper	1996	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-NOX-120 FIL-101-NOX-120	S-101-NOX-014
FD-101-S18-001	Feeder	1996			
H-101-S18-002	Weigh Hopper	1996			
PD-101-S18-001	Product Drumming	1996			

101-S18 Control Devices

Control ID	Description
DC-101-NOX-120	Baghouse (99.786%), Opti Flow, Model 1672385-1
FIL-101-NOX-120	HEPA filter (99.97%), Torit, Model Ultra Lok

101-S18 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr from each PM emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, and Regulation 7.08 section 3.1.2)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of DC-101-NOX-120 and FIL-101-NOX-120 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop across DC-101-NOX-120 at least once during each operating day to ensure it is maintained between 0.5 and 6.0" w.c.

iii. The owner or operator shall monitor and record the pressure drop across FIL-101-NOX-120 at least once during each operating day to ensure it is maintained between 0.1 and 6.5" w.c.

iv. For any period of operating outside the established pressure drop range for DC-101-NOX-120 and/or FIL-101-NOX-120, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

v. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control device DC-101-NOX-120 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control devices were operating at all times the processes were operating during a reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-NOX-120 and/or FIL-101-NOX-001, including the information recorded in S2.e.iv. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S18 Comments

1. The potential controlled hourly PM emissions after the first control device are below the applicable standards in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential uncontrolled TAC emissions of copper from all EP DD-101-S18-001, H-101-S18-001, FD-101-S18-001, H-101-S18-002 and PD-101-S18-001 and ammonia from

EP PD-101-S18-001 are below the de minimis levels in Regulation 5.21. The potential HEPA-controlled nickel emissions are below the de minimis levels in Regulation 5.21.

3. There are no air emissions associated with the wet catalyst drum dumper DD-101-S18-002 or weigh hopper H-101-S18-003, which process wet material.

EU 101-S19: North 101-S19 Catalyst System; impregnating catalyst carriers with various metal ions

101-S19 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1,2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S19 Emission Points

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
DD-101-S19-001	Drum Dumper	1979	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-FITZ-118 FIL-101-FITZ-118	S-101-FITZ-001
DB-101-S19-001	Basket	1979			
H-101-S19-001	Hopper	1979			
T-101-S19-001	North Tank	1979	5.21	NA	NA

101-S19 Control Devices

Control ID	Description
DC-101-FITZ-118	Baghouse (99.343%), Mikropul, Type 16.6.100
FIL-101-FITZ-118	HEPA filter (99.97%), Torit, Model Ultra Lok

101-S19 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause PM emissions to exceed 2.34 lb/hr from each EP DD-101-S19-001, DB-101-S19-001, and H-101-S19-001. (Regulation 7.08, section 3.1.2)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2, and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of DC-101-FITZ-118 and FIL-101-FITZ-118 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop across DC-101-FITZ-118 at least once during each operating day to ensure each are maintained between 1.0 and 6.0" w.c.

iii. The owner or operator shall monitor and record the pressure drop across FIL-101-FITZ-118 at least once during each operating day to ensure each are maintained between 1.5 and 4.0" w.c.

iv. For any period of operating outside the established pressure drop range for DC-101-FITZ-118 and/or FIL-101-FITZ-118, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

v. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-FITZ-118 or FIL-101-FITZ-118 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for FIL-101-FITZ-118 and/or FIL-101-FITZ-118, including the information recorded in S2.e.iv. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S19 Comments

1. This potential controlled PM emissions after the first control device are below the applicable standards in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential controlled emissions of trivalent chromium, copper and manganese are below the de minimis levels in Regulation 5.21 after the first control device. The potential HEPA-controlled emissions of hexavalent chromium and nickel are below the

de minimis levels in Regulation 5.21. The potential uncontrolled nitric acid emissions from EP T-101-S19-001 are below the de minimis levels in Regulation 5.21.

EU 101-S21 and 101-S28: Catalyst Mixing Systems; catalysts ingredients are combined. Extruded rework is reground in a hammermill for reuse in the process.

101-S21: North Catalyst Mixing System
101-S28: South Catalyst Mixing System

101-S21 and 101-S28 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S21 and 101-S28 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S21	DD-101-S21-001	North Drum Dumper	1979	7.08, 5.21	DC-101-S21-116 FIL-101-S21-116	S-101-S21-001
	MX-101-S21-001	North Mixer	1956			
101-S28	DD-101-S28-001	South Drum Dumper	1956	7.08, 5.21	DC-101-S28-115 FIL-101-S28-115	S-101-S28-001
	MX-101-S28-001	South Mixer	1956			

101-S21 and 101-S28 Control Devices

EU	Control ID	Description
101-S21	DC-101-S21-116	Baghouse (99.343%), Flex-Kleen, Model 58BV-36-III
	FIL-101-S21-116	HEPA filter (99.97%), Torit, Model Ultra Lok
101-S28	DC-101-S28-115	Baghouse (99.343%), Flex-Kleen, Model 58BV-36-III
	FIL-101-S28-115	HEPA (99.97%), Torit, Ultra-Lok 1x1

101-S21 and 101-S28 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. For each PM emission point, the owner or operator shall not allow the PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.3.1) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 6.09 section 4.1 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-101-S21-116	1.0 – 6.0
FIL-101-S21-116	0.1 – 5.0
DC-101-S28-115	1.0 – 6.0
FIL-101-S28-115	0.1 – 5.0

iii. For any period of operating outside the established pressure drop range for DC-101-S21-116, FIL-101-S21-116, DC-101-S28-115 and/or FIL-101-S28-115, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-S21-116 or DC-101-S28-115 once during the life of this permit 27759-14-TV, based on

plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control devices were operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control devices were operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-S21-116, FIL-101-S21-116, DC-101-S28-115 and/or FIL-101-S28-115, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S21 and 101-S28 Comments

1. The potential controlled hourly PM emissions after the first control device are below the applicable hourly PM emission standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential HEPA-controlled cobalt emissions are below the de minimis levels in Regulation 5.21.

4. There are no air emissions associated with T-101-S21-001 North Tank, DD-101-PELL-001 Drum Dumper, H-101-PELL-001 Hopper, CV-101-PELL-001 Conveyor, M-101-PELL-001 Mill, or CV-101-PELL-002 Conveyor, which process wet material.

EU 101-S22 and 101-S29: Screening System

EU 101-S22: North Screening System
EU 101-S29: South Screening System

101-S22 and 101-S29 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S22 and 101-S29 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S22 (North Screening System)	DD-101-S22-001/H-101-S22-001	Drum Dumper/ Hopper	1994	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S22-011 FIL-101-S22-011	S-101-S22-001
	FD-101-S22-001	Feeder				
	VS-101-S22-001	Screener				
	PD-101-S22-001	Product Drum				
	H-101-S22-002	Supersack Hopper				
	PD-101-S22-002	Supersack Drum				
101-S29 (South Screening System)	DD-101-S29-001/H-101-S29-001	Drum Dumper/ Hopper	1994	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S29-010 FIL-101-S29-010	S-101-S29-001
	FD-101-S29-001	Feeder	1994			
	VS-101-S29-001	Screener	1994			
	PD-101-S29-001	Product Drum	1994			

101-S22 and 101-S29 Control Devices

Control ID	Description
DC-101-S22-011	Baghouse (99.343%), Flex Kleen, Model 58-BVBG-36
FIL-101-S22-001	HEPA filter (99.97%), Donaldson Torit Ultra Lok 1x2
DC-101-S29-010	Baghouse (99.343%), Mikro Pulsaire, Model 4958-20
FIL-101-S29-010	HEPA filter (99.97%), Donaldson Torit Ultra Lok 1x2

101-S22 and 101-S29 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause PM emissions to exceed 6.72 lb/hr from each PM emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comments 3 and 4.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of the control devices for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-101-S22-011	1.0 – 6.0
DC-101-S29-010	0.5 – 4.0
FIL-101-S22-001 and FIL-101-S29-010	0.2 – 5.0

iii. For any period of operating outside the established pressure drop range for DC-101-S22-011, DC-101-S29-010, FIL-101-S22-001 and/or FIL-101-S29-010, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-S22-011, DC-101-S29-010 or FIL-101-S22-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-S22-011, DC-101-S29-010, FIL-101-S22-001 and/or FIL-101-S29-010, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S22 and 101-S29 Comments

1. This process meets the standards in Regulation 7.08 controlled after the first control device.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential TAC emissions for the emission points listed in the table below are less than the de minimis levels in Regulation 5.21, with the exception of the tier 2 analyses for

the noted emission points. The control devices needed are listed in the table below.

EU	Emission Point	Co	Cr(III)	Cr(VI)	Cu	Mn	Ni
101-S22	DD-101-S22-001/H-101-S22-001	2nd	2nd	Tier 2	2nd	2nd	2nd
	FD-101-S22-001	2nd	1st	2nd	1st	2nd	2nd
	VS-101-S22-001	2nd	2nd	2nd	1st	2nd	2nd
	PD-101-S22-001	2nd	2nd	2nd	1st	2nd	2nd
	H-101-S22-002	2nd	2nd	2nd	1st	2nd	2nd
	PD-101-S22-002	2nd	2nd	2nd	1st	2nd	2nd
101-S29	DD-101-S29-001/H-101-S29-001	2nd	2nd	Tier 2	2nd	2nd	2nd
	FD-101-S29-001	2nd	1st	2nd	1st	2nd	2nd
	VS-101-S29-001	2nd	2nd	2nd	1st	2nd	2nd
	PD-101-S29-001	2nd	2nd	2nd	1st	2nd	2nd

4. The potential controlled hexavalent chromium emissions from EP DD-101-S22-001/H-101-S22-001 and DD-101-S29-001/H-101-S29-001 are above the de minimis levels in Regulation 5.21. Therefore, the source performed a Tier 2 analysis of the risk, resulting in the following cancer risks.

EU	Emission Point	TAC	Location	Risk	EAG_C	HQ	EAG_{NC}
101-S22	DD-101-S22-001/H-101-S22-001	Cr(VI)	industrial	0.38	< 10.0	0.004	< 3.0
			unadjusted	0.17	< 1.0	0.002	< 1.0
101-S29	DD-101-S29-001/H-101-S29-001	Cr(VI)	industrial	0.38	< 10.0	0.004	< 3.0
			unadjusted	0.17	< 1.0	0.002	< 1.0

EU 101-S23: Material handling system; transfer of dry catalyst material from dryers to drums

101-S23 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S23 Emission Points

Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
DD-101-S23-101	Drum Dumper with Hopper	2008	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S23-001 FIL-101-S23-001	S-101-S23-001
PD-101-S23-101	Product Drumming	2008			

101-S23 Control Devices

Control ID	Description
DC-101-S23-001	Baghouse (99.786%), Torit, Model DFT-2-4
FIL-101-S23-001	HEPA filter (99.97%), Torit, Ultra-Lok 1x1

101-S23 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the emissions of PM to exceed 5.52 lb/hour from EP DD-101-S23-101 and PD-101-S23-101. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each PM control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-101-S23-001	2.0-7.5
FIL-101-S23-001	1.0-8.0

iii. For any period of operating outside the established pressure drop range for DC-101-S23-001 and/or FIL-101-S23-001, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-S23-001 or FIL-101-S23-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for DC-101-S23-001 and/or FIL-101-S23-001, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S23 Comments

1. The potential controlled hourly PM emissions after the first control device are below the applicable PM emission standard.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential HEPA-controlled TAC emissions of cobalt, manganese and nickel are below the de minimis levels in Regulation 5.21. The potential controlled emissions of

copper and sulfuric acid after the first control device are below the de minimis levels in Regulation 5.21.

EU 101-S24 and 101-S25: Calcining System; calcining of catalysts

101-S24 and 101-S25 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3, and 4
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S24 and 101-S25 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S24	DD-101-S24-003	#6 Drum Dumper	1975	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S03-123 FIL-101-S03-001	S-101-S03-001
	FD-101-S24-001	#6 Circle Feeder	1975			
	HT-101-NOX-003	#6 Calciner, Bartlett & Snow, 2 MMBtu/hr	1975		ED-101-NOX-003 V-101-NOX-001	S-101-NOX-013 S-101-NOX-004
	VS-101-S24-001	Screener	2009		DC-101-NOX-120 FIL-101-NOX-120	S-101-NOX-014
	PD-101-S24-001	Product Drumming	1975			
101-S25	DD-101-S25-004	#8 Drum Dumper	1977	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-101-S03-123 FIL-101-S03-001	S-101-S03-001
	FD-101-S25-001	#8 Circle Feeder	1977			
	HT-101-NOX-004	#8 Calciner, Bartlett & Snow, 2 MMBtu/hr	1977		ED-101-NOX-006 V-101-NOX-001	S-101-NOX-013 S-101-NOX-008
	VS-101-S25-002	Screener	2009		DC-101-NOX-120 FIL-101-NOX-120	S-101-NOX-014
	PD-101-S25-001	Product Drumming	1977			

101-S24 and 101-S25 Control Devices

EU	Control ID	Description
101-S24,	DC-101-NOX-123	Baghouse (99.343%), Flex-Kleen, Model 58 BVBS-36
	FIL-101-S03-001	HEPA Filter (99.97%), Torit Donaldson, Model Ultraweb

EU	Control ID	Description
101-S25	ED-101-NOX-003	Eductor (95% (PM), 75% (NO_X)), Schutte & Koerting Model 9010 8"
	V-101-NOX-001	Packed-bed scrubber (95% (PM), 75% (NO_X)), GH Hicks/NST Metals, Model CC-NOX-II
	DC-101-NOX-120	Baghouse (99.786%), Opti Flow, Model 1672385-1
	FIL-101-NOX-120	HEPA filter (99.97%), Permit 136-09-C
101-S25	ED-101-NOX-006	Eductor (95% (PM), 75% (NO_X)), Schutte & Koerting Model 9010 8"

101-S24 and 101-S25 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. From each EP DD-101-NOX-003, DD-101-S24-001, HT-101-NOX-003, VS-101-S24-001, PD-101-S24-001, DD-101-NOX-004, FD-101-S25-001, HT-101-NOX-004, VS-101-S25-001, and PD-101-S25-001, the owner or operator shall not allow or cause the PM emission to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **NO_X**

i. From EP HT-101-NOX-003 and HT-101-NOX-004, the owner or operator shall not allow or cause the emissions of NO_X to exceed 300 ppmv, expressed as NO_2. (Regulation 7.08, section 4) (See Comment 4.)

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;

2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when the process was operating and an associated TAC control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **NO_X**

For any period of time when EP HT-101-NOX-003 and/or HT-101-NOX-004 was operating and an associated NO_X control device was not operating, the owner or operator shall maintain the following records:

i. The duration;

ii. The process throughput during the control device downtime;

iii. The emissions of NO_X (ppmv and tons); and

iv. Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

f. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-101-NOX-123, ED-101-NOX-003, ED-101-NOX-006, DC-101-NOX-120, DC-101-S03-123, FIL-101-S03-001, V-101-NOX-001 and FIL-101-NOX-120 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or

replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For each control device, the owner or operator shall monitor and record the performance indicator range at least once during each operating day to ensure it is maintained within the operating ranges as shown in the table below.

Control ID	Operating Range
DC-101-NOX-123	Pressure Drop: 0.5 – 6.0 " w.c.
DC-101-NOX-120	Pressure Drop: 0.5 – 6.0 " w.c.
FIL-101-NOX-120	Pressure Drop: 0.1 – 6.5 " w.c.
ED-101-NOX-003	Pressure: 40 – 130 PSI
V-101-NOX-001	Pressure Drop: 2 - 10" WC Top Water Flow Rate ≥5 gpm Middle Water Flow Rate ≥5 gpm Bottom Water Flow Rate ≥5 gpm
ED-101-NOX-006	Pressure: 40 – 130 PSI
FIL-101-S03-001	Pressure Drop: 0.05 – 6.0 " w.c.

iii. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-101-NOX-123, DC-101-NOX-120, ED-101-NOX-003, V-101-NOX-001, ED-101-NOX-006 or FIL-101-S03-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control devices were operating at all times the processes were operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control devices were operating at all times the processes were operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **NO_X**

i. Identification of all periods when HT-101-NOX-003 or HT-101-NOX-004 was operating and an associated NO_X control device was not operating, including the information recorded in S2.e. If the control devices were operating at all times the processes were operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

f. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device during a reporting period, including the information recorded in S2.f.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

101-S24 and 101-S25 Comments

1. The potential controlled emissions after the first control device are below the standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential controlled TAC emissions are below the de minimis levels in Regulation 5.21. The control devices needed are listed in the table below.

Emission Point	Co	Cr(VI)	Cu	Ni
DD-101-S24-003, FD-101-S24-001, HT-101-NOX-003, VS-101-S24-001, PD-101-S24-001, DD-101-S25-004, FD-	2nd	2nd	1st	2nd

Emission Point	Co	Cr(VI)	Cu	Ni
101-S25-001, VS-101-S25-001, PD-101-S25-001				
HT-101-NOX-004	2nd	2nd	2nd	2nd

4. The potential controlled NO_X emissions are below the applicable emission standard.

EU 102-S30, 102-S31, 102-S32 and 102-S33: Reduction furnace systems; metal oxide reduction to elemental metal

102-S30, 102-S31, 102-S32 and 102-S33 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

102-S30, 102-S31, 102-S32 and 102-S33 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
102-S30	DD-102-S30-101	Drum Dumper	1986	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-102-S30-216 FIL-102-S30-216	S-102-S30-001
	H-102-S30-101	Feed Hopper	1986			
	T-102-S30-104	Feed Tank	1986			
	T-102-S30-105	Discharge Tank	1986		FIL-102-S30-003	S-102-S30-004
102-S31	DD-102-S31-101	Drum Dumper	1986	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-102-S31-217 FIL-102-S31-217	S-102-S31-001
	H-102-S31-001	Feed Hopper	1986			
	T-102-S31-106	Feed Tank	1986			
	T-102-S31-107	Discharge Tank	1986		FIL-102-S31-003	S-102-S31-004
102-S32	DD-102-S32-001	Drum Dumper	1986	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	DC-102-S33-218 FIL-102-S33-218	S-102-S33-001
	PD-102-S32-001	Product Drumming	1986			
102-S33	DD-102-S33-001	Drum Dumper	1988			
	PD-102-S33-001	Product Drumming	1988			

102-S30, 102-S31, 102-S32 and 102-S33 Control Devices

EU	Control ID	Description
102-S30	DC-102-S30-216	Baghouse (99.343%), Flex-Kleen, Model 58CTBS-18-III
	FIL-102-S30-003	Mott Tube Filter (99.933%), Model 2248-A32-A00-50-AA
	FIL-102-S30-216	HEPA filter (99.97%), Solberg, Model CSL-HE-344-500F
102-S31	DC-102-S31-217	Baghouse (99.343%), Flex Kleen, Model 58CTBS-18-III
	FIL-102-S31-003	Mott Tube Filter (99.933%), Model 2248-A32-24-A00-50-AA
	FIL-102-S31-217	HEPA filter (99.97%), Torit, Model UltraLok
102-S32 and 102-S33	DC-102-S33-218	Baghouse (99.786%), Mikro Pulsaire, Model CF6
	FIL-102-S33-218	HEPA filter (99.97%), Torit Donaldson, Model Ultraweb

102-S30, 102-S31, 102-S32 and 102-S33 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb/hr from each PM emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when a process was operating and an associated TAC control device was not operating, the owner or operator maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-102-S30-216	0.5 – 2.5
FIL-102-S30-003	1.5 – 10.5
FIL-102-S30-216	1.0 – 15.5
DC-102-S31-217	1.0 – 2.5
FIL-102-S31-003	1.5 – 10.5
FIL-102-S31-217	0.2 – 5.0
DC-102-S33-218	0 – 10.0
FIL-102-S33-218	0.2 – 5.0

iii. For any period of operating outside the established pressure drop range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control devices DC-102-S30-216, FIL-102-S30-003, FIL-102-S30-216, DC-102-S31-217, FIL-102-S31-003, DC-102-S33-218 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

102-S30, 102-S31, 102-S32 and 102-S33 Comments

1. These processes meets the standards in Regulation 7.08 controlled after the first control device.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. Except where a tier 3 analysis is noted, the potential TAC emissions for the emission points in the table below are less than the de minimis levels in Regulation 5.21, with the listed levels of control.

EU	Emission Point	Co	Cr(III)	Cr(IV)	Cu	Ni
102-S30	DD-102-S30-101	2nd	NA	NA	NA	2nd
	H-102-S30-101	2nd	NA	NA	NA	2nd
	T-102-S30-104	2nd	NA	NA	NA	2nd
	T-102-S30-105	1st	NA	NA	NA	Tier 3
102-S31	DD-102-S31-101	2nd	NA	NA	NA	2nd
	H-102-S31-001	2nd	NA	NA	NA	2nd
	T-102-S31-106	2nd	NA	NA	NA	2nd
	T-102-S31-107	1st	NA	NA	NA	Tier 3
102-S32	DD-102-S32-001	NA	1st	2nd	1st	2nd
	PD-102-S32-001	NA	1st	2nd	1st	2nd
102-S33	DD-102-S33-001	NA	1st	2nd	1st	2nd
	PD-102-S33-001	NA	1st	2nd	1st	2nd

The potential controlled nickel emissions from EP T-102-S30-105 and T-102-S31-107 are above the averaging period de minimis level. Therefore, the source performed a Tier 3 analysis, resulting in the following risks and hazard quotients.

EU	Location	Risk	Status	HQ	Status
102-S30	industrial	0.95	< 10.0	0.072	< 3.0
	unadjusted	0.24	< 1.0	0.018	< 1.0
102-S31	industrial	0.29	< 10.0	0.022	< 3.0
	unadjusted	0.13	< 1.0	0.010	< 1.0

4. There are no air emissions associated with the reduction furnaces, V-102-S30-001, V-102-S31-001, V-102-S32-001 or V-102-S33-001. There are also no air emissions associated with the cyclone separators (SEP-102-S30-001, SEP-102-S30-002, SEP-102-S32-001, SEP-102-S32-002, SEP-102-S33-001 and SEP-102-S33-002), cartridge filters (FIL-102-S30-001 and FIL-102-S30-002) or cyclone separators (SEP-102-S31-001 and SEP-102-S31-002), which process wet material. There are also no air emissions associated with the dryers (DR-102-S32-001, DR-102-S32-002, DR-102-S33-001, or DR-102-S33-002). They are designed to remove any remaining water in the gas stream. They do not consume natural gas and have no air emissions.

EU 102-S34 and 102-S36: Process tanks

102-S34: Ammonia Recovery System; removal of concentrated ammonia from vapor for storage and recycle in plant processes
102-S36: Precipitation of metal catalyst products

102-S34 and 102-S36 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

102-S34 and 102-S36 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
102-S34	T-102-S34-100	NH_3 Storage Tank 100, 4500 gal	1980	5.21	SC-102-S34-100	S-102-S34-001
	T-102-S34-101	NH_3 Storage Tank 101, 4500 gal	1980			
	T-102-S34-102	Scrubber Water Make-up Tank 102, 1000 gal	1980			
	T-102-S34-103	NH_3 Recovery Hold Tank 103, 7700 gal	1980			
	T-102-S34-104	Scrubber Water Return Tank 104, 13,000 gal	1980			
	T-101-AQNH-001	Aqueous Ammonia Storage Tank, 66,000 lb	1969			
102-S36	T-102-S38-007	Slurry Tank, 2000 gal	1985	7.08	NA	S-102-S38-001
	T-102-S36-008	South Tank, 6000 gal	1988	5.21	NH_3 Recovery System (HE-102-S34-100, 101/102/103, V-102-S34-100)	S-102-S34-001
	T-102-S36-009	North Tank, 6000 gal	1988			
	T-102-S36-018 - 019	East and West Tanks, 4500 gal each	1985	5.21	NA	NA

102-S34 and 102-S36 Control Devices

Control ID	Description
SC-102-S34-100	Wet scrubber (75%), SCI, Model DWG-E-102-AR2-31
HE-102-S34-100	Economizer (95% (PM), 75% (NH_3)), SCI
HE-102-S34-101	Condenser (75% (NH_3)), Happy, Model 1F1016-1108-MVH
HE-102-S34-102	Condenser (75% (NH_3)), Happy, Model 1F1016-1108-MVH
HE-102-S34-103	Condenser (75% (NH_3)), Happy, Model 1F1016-1108-MVH
V-102-S34-100	Ammonia Recovery Stripper Column (95% (PM), 75% (NH_3)), Vedome Brass Co.

102-S34 and 102-S36 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. From EP T-102-S38-007, the owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb/hr from each PM emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

For EP T-102-S38-007, see Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04 and 2.05)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$ and HAP**

See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **TAC**

See Source-Wide Specific Conditions.

d. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair

and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flow rate of SC-102-S34-100 at least once during each operating day to ensure it is at least 4 gpm.

iii. For V-102-S34-100, the owner or operator shall monitor and record the outlet temperature at least once during each operating day to ensure it is maintained between 208 and 215 °F.

iv. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$, HAP, TAC**

See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device, including the information recorded in S2.d.iv. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

102-S34 and 102-S36 Comments

1. For EP T-102-S38-007, the potential uncontrolled hourly PM emissions are below the applicable emission standards in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential uncontrolled NH_3 emissions from EU T- 102-S34-100, T- 102-S34-101, T-102-S34-102, T- 102-S34-103, T-102-S34-104, T-101-AQNH-001, T-102-S36-008 are T-102-S36-009 are below the de minimis levels in Regulation 5.21.

4. There are no air emissions associated with the tank T-102-S38-006, drum dumper DD-102-S34-001, feeder/conveyor FD-102-S34-001/CV-102-S34-001), dryer tank T-102-S36-025, tanks T-102-S36-026 and T-102-S36-027, slurry tank T-102-S36-024, conveyors CV-102-S36-001 and CV-102-S36-002, south tank T-102-S36-023, mixer MX-102-S36-001, or south feed tank T-102-S36-022, which process wet material.

5. The product drum PD-102-S36-001, spray dryer SD-102-S36-001, Calciner #4 HT-102-S36-001, silos S-102-S36-001 and S-102-S36-002, and drum dumper DD-102-S36-001 were disassembled and are no longer in service.

EU 102-S35: Stabilization System; air stabilization of reduced metal catalyst products

102-S35 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

102-S35 Emission Points

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
T-102-S35-108	Bagger Discharge Tank	1982	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	FIL-102-S35-004 FIL-102-S35-005	S-102-S35-002
T-102-S35-109	Drummer Discharge Tank	1982		FIL-102-S35-006 FIL-102-S35-007	NA
V-102-S35-001	Stabilizer	1982		Internal Mott FIL-102-S35-003	S-102-S35-002
SSD-102-S35-001	Supersacker/Drummer	1982		DC-102-S35-212 FIL-102-S35-008	S-102-S35-001
PT-102-S35-001 and PD-102-S35-001	Product Tote and Product Drum	1982		DC-102-S35-212, FIL-102-S35-008	S-102-S35-001

102-S35 Control Devices

Control ID	Description
Internal Mott	Mott tube filter (99.933%), Mott Metallurgical Corp. Porous Filter 2244-A16-36-A00-KB
DC-102-S35-212	Baghouse (99.055%), Flex Kleen, Model 58-BVBC-25-III
FIL-102-S35-003	Mott tube filter (99.933%), Mott Metallurgical Corp. Porous Filter 2248S-B32-18-A00-5-AB
FIL-102-S35-005	
FIL-102-S35-007	
FIL-102-S35-004	Mott tube filter (99.933%), Mott Metallurgical Corp. Porous Filter 6400S-1 ½-2-1-17.75-20-AB
FIL-102-S35-006	
FIL-102-S35-008	HEPA filter (99.97%), Donaldson Torit Ultra Lok 1x1

102-S35 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **PM/PM_{10}/$PM_{2.5}$**

i. The owner or operator shall not allow PM emissions to exceed 7.09 lb/hr from each V-102-S35-001, T-102-S35-108 and T-102-S35-109 and 4.62 lb/hr from each SSD-102-S35-001, PT-102-S35-001 and PD-102-S35-001. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **PM/PM_{10}/$PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when a process was operating and an associated TAC control device was not operating, the owner or operator maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of each control device for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure the pressure drop is maintained within the operating range as shown in the table below.

Control ID	Pressure Drop (" w.c.)
DC-102-S35-212	0 – 10.0
FIL-102-S35-003, FIL-102-S35-004, FIL-102-S35-005, FIL-102-S35-006, FIL-102-S35-007, and FIL-102-S35-008	0.2 – 5.0

iii. For any period of operating outside the established pressure drop range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control device DC-102-S35-212 once

during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for a control device, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

102-S35 Comments

1. The potential controlled PM emissions are below the applicable standards in Regulation 7.08 after the first control device.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential controlled nickel emissions are below the de minimis levels in Regulation 5.21 after the second control device.

EU 102-S37: Hydrochloric acid tank; unloading hydrochloric acid from tanker trucks

102-S37 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
NA	NA	NA

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3

102-S37 Emission Points

EP	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
T-102-S37-001	Hydrochloric acid storage tank, 8000 gal	1995	5.14	SC-102-S37-001	S-102-S37-001

102-S37 Control Devices

Control ID	Description
SC-102-S37-001	Wet scrubber (75% (HCl)), Harrison Plastics

102-S37 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **HAP**

See Source-Wide Specific Conditions.

b. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04 and 2.05)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **HAP**

See Source-Wide Specific Conditions.

b. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of SC-102-S37-001 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flow rate of SC-102-S37-001 at least once during each unloading event from a tanker truck to ensure it is at least 3 gallons/minute.

iii. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The observed performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **HAP**

See Source-Wide Specific Conditions.

b. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device, including the information recorded in S2.b.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

102-S37 Comments

1. The potential uncontrolled HCl emissions from EU 102-S37 are excluded from the EA determination since Clariant, as a Group 2 source, did not report to EPA for the 2007 TRI, pursuant to Regulation 5.21, Section 4.14.2.

EU 102-S38: 102-S38 System; dissolving metallic Nickel

102-S38 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

102-S38 Emission Points

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
T-102-S38-001	Solution Make-up Tank, 4,353 gal	1970	5.21	SC-102-S34-100	S-102-S34-001
T-102-S38-002	East Tank, 5891 gal	1994	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	SC-102-S34-100 FIL-102-S38-001	S-102-S34-001
T-102-S38-003	Central Tank, 5891 gal	1994			
T-102-S38-004	Upper Hold Tank, 5157 gal	1994	5.21	SC-102-S34-100	S-102-S34-001
T-102-S38-005	Lower Hold Tank, 5891 gal	1994	5.21		

102-S38 Control Devices

Control ID	Description
SC-102-S34-100	Wet scrubber (95% (PM), 75% (NH_3)), SCI, Model DWG-E-102-AR2-31
FIL-102-S38-001	HEPA filter (99.97%), Sears, Model 17816

102-S38 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. For EP T-102-S38-002 and T-102-S38-003, the owner or operator shall not cause or allow the PM emissions to exceed 4.02 lb/hr from each emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, 7.08 section 3.1.2 and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. For any period of time when a process was operating and an associated TAC control device was not operating, the owner or operator maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of SC-102-S34-100 and FIL-102-S38-001 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the inlet water flowrate of SC-102-S34-100 at least once during each operating day to ensure it is at least 10 gpm.

iii. For any period of operating outside the established performance indicator range for a control device, the owner or operator shall maintain the following records:

1) The date,
2) The performance indicator value,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the

process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.d.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

e. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for a control device, including the information recorded in S2.e.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

102-S38 Comments

1. The potential controlled PM emissions after the first control device from EU T-102-S38-002 and T-102-S38-003 are below the applicable PM emission standards.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential HEPA-controlled nickel emissions from EU T-102-S38-002 and T-102-S38-003 are below the de minimis levels in Regulation 5.21. The potential controlled ammonia emissions from EP T-102-S38-001, T-102-S38-004 and T-102-S38-005 after the first control device are below the de minimis levels in Regulation 5.21. However, the potential controlled ammonia emissions from EP T-102-S38-002 and T-102-S38-003 are greater than the averaging period de minimis level. Therefore, the source performed a Tier 3 analysis, resulting in the following risks and hazard quotients.

EP	Location	Risk	Status	HQ	Status
T-102-S38-002 and T-102-S38-003	industrial	--	--	0.028	< 3.0
	unadjusted	--	--	0.033	< 1.0

4. There are no air emissions associated with Adjustment Tank T-102-S38-020, North Decant Tank T-102-S38-021 or Tank T-102-S38-015.

EU 102-S39: 102-S39 System; stabilization of reduced metal catalyst products

102-S39 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	See Source-Wide Specific Conditions

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2 and 3
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

102-S39 Emission Points

EP	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
MX-102-S39-001	Blender	1990	7.08, 5.21, 40 CFR 63 Subpart VVVVVV	FIL-102-S39-001	S-102-S39-001
VS-102-S39-001	Screener	1990	7.08	NA	NA
CV-102-S39-001	Conveyor	1990			
H-102-S39-001	Hopper	1990			
VS-102-S39-002	Screener	1990			
PD-102-S39-001	Product Drum	1990			

102-S39 Control Devices

Control ID	Description
FIL-102-S39-001	Mott filter (99.933%), Model 2248-A32-24-A00-50-AA

102-S39 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb/hr from each PM emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **HAP**

See Source-Wide Specific Conditions.

d. **TAC**

See Source-Wide Specific Conditions. (See Comment 3.)

e. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, 5.01, 5.21, and 40 CFR 63 Subpart VVVVVV)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$ and HAP**

See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **TAC**

i. For any period of time when a process was operating and an associated TAC control device was not operating, the owner or operator maintain the following records:

1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of each TAC (lb/hr and lb/avg. period); and

4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

d. **Control Device Operation**

i. The owner or operator shall perform a monthly visual inspection of the structural and mechanical integrity of FIL-102-S39-001 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. The owner or operator shall monitor and record the pressure drop across FIL-102-S39-001 at least once during each operating day to ensure the pressure drop is maintained between 3.0 and 10.5" w.c.

iii. For any period of operating outside the established pressure drop range for FIL-102-S39-001, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control device FIL-102-S39-001 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$, HAP**

See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **TAC**

i. Identification of all periods when a process was operating and an associated TAC control device was not operating, including the information recorded in S2.c.i. If the control device was operating at all

times the process was operating during the reporting period, the compliance report must include a statement to that effect

ii. See Source-Wide Specific Conditions.

d. **Control Device Operation**

Identification of all periods of operating outside the established pressure drop range for FIL-102-S39-001, including the information recorded in S2.d.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

102-S39 Comments

1. The potential uncontrolled PM emissions are below the applicable emission standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

3. The potential controlled TAC emissions of cobalt and nickel from EU MX-102-S39-001 are below the de minimis levels in Regulation 5.21.

4. There are no air emissions from the discharge end water tank T-102-S39-001 and T-102-S39-002 or RF-102-S39-001, which contain water.

EU 103-S40: Warehouse Packaging System; product transfer from drums to supersacks

103-S40 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2 and 3

103-S40 Emission Points

Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
DD-103-S40-001	Drum Dumper	1994	7.08	DC-103-S40-012	S-103-S40-001
H-103-S40-001/PA-103-S40-001	Hopper/Packager	1994			

103-S40 Control Devices

Control ID	Description
DC-103-S40-012	Baghouse (99.343%), Flex Kleen, Model 58-BVBS-36-IIG

103-S40 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause the PM emissions to exceed 6.85 lb/hr from each PM emission point. (Regulation 7.08, section 3.1.2) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

See Source-Wide Specific Conditions. (See Comment 2.)

c. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulations 2.04, 2.05, and Regulation 7.08 section 3.1.2)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$**

i. For any period of time when the process was operating and an associated PM control device was not operating, the owner or operator shall maintain the following records:
1) The duration;
2) The process throughput during the control device downtime;
3) The emissions of PM (lb/hr) and PM/PM_{10} (tons); and
4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or recordkeeping requirements for opacity for this EU.

c. **Control Device Operation**

i. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of DC-103-S40-012 for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

ii. For DC-103-S40-012, the owner or operator shall monitor and record the pressure drop at least once during each operating day to ensure it is between 0.5 and 2.0 " w.c.

iii. For any period of operating outside the established pressure drop range for DC-103-S40-012, the owner or operator shall maintain the following records:

1) The date,
2) The observed pressure drop,
3) Corrective action taken to minimize the extent of the excursion, and measures implemented to prevent reoccurrence.

iv. Upon notification to the District, the owner or operator may modify the pressure drop operating range for control device DC-103-S40-012 once during the life of this permit 27759-14-TV, based on plant operating trends. The operating trends that necessitated a change shall be kept for the life of the control device.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **PM/PM_{10}/$PM_{2.5}$**

i. Identification of all periods when a process was operating and an associated PM control device was not operating, including the information recorded in S2.a.i. If the control device was operating at all times the process was operating during the reporting period, the compliance report must include a statement to that effect.

ii. See Source-Wide Specific Conditions.

b. **Opacity**

There are no reporting requirements for this EU.

c. **Control Device Operation**

Identification of all periods of operating outside the established performance indicator range for DC-103-S40-012, including the information recorded in S2.c.iii. If there were no excursions during a reporting period, the compliance report must include a statement to that effect.

103-S40 Comments

1. The potential controlled hourly PM emissions are below the applicable emission standard in Regulation 7.08.

2. The District has determined that no periodic visible emissions surveys are required for this emission unit.

EU 101-S10: Two (2) natural gas fired boilers

101-S10 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.06	Standards of Performance for New Indirect Heat Exchangers	1, 2, 3, 4 and 5

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
NA	NA	NA

101-S10 Emission Points

EU	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
B-101-S10-001	Boiler, Superior, 25.14 MMBtu/hr	1973	7.06	NA	S-101-S10-001
B-101-S10-002	Boiler, Superior, 25.14 MMBtu/hr	1973		NA	S-101-S10-002

101-S10 Control Devices

There are no control devices associated with Emission Unit 101-S10.

101-S10 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **$PM/PM_{10}/PM_{2.5}$**

i. The owner or operator shall not allow or cause to be discharged into the atmosphere, any gases which contain particulate matter in excess of 0.36 lb per million BTU actual heat input capacity. (Regulation 7.06, section 4.1.3) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

b. **Opacity**

The owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity. (Regulation 7.06, section 4.2) (See Comment 2.)

c. **SO_2**

i. The owner or operator shall not cause to be discharged into the atmosphere from each boiler any gases which contain sulfur dioxide in excess of 1.0 lb per million BTU actual heat input capacity. (Regulation 7.06, section 5.1.1) (See Comment 1.)

ii. See Source-Wide Specific Conditions.

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **$PM/PM_{10}/PM_{2.5}$ and SO_2**

See Source-Wide Specific Conditions.

b. **Opacity**

There are no monitoring or record keeping requirements for opacity.

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **$PM/PM_{10}/PM_{2.5}$ and SO_2**

See Source-Wide Specific Conditions.

b. **Opacity**

There are no compliance reporting requirements for opacity.

101-S10 Comments

2. A one-time PM and SO_2 compliance demonstration has been performed for the two boilers using AP-42 emission factors. The emission standards cannot be exceeded when combusting natural gas. Therefore, there are no monitoring, record keeping, or reporting requirements.

3. The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard when combusting natural gas.

4. The TAC emissions from the combustion of natural gas are considered to be "de minimis emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas. (Regulation 5.21, section 2.7)

4. EU B-101-S10-003, a 15.0 MMBtu/hr Ames Boiler, was removed from the facility, as found on the August 2012 inspection.

EU 101-S04, 101-S20, 101-S27, 104-S41

101-S04: Box Dryer #2, low temperature drying of catalysts, electric
101-S20: Unloading of nitric acid from tanker trucks to storage tanks
101-S27: South 101-S27 System; impregnation of catalyst carriers with various metal ions, using drum dumper, hopper and basket from EU 101-S19
104-S41: Wastewater Treatment System. Collection, chemical precipitation, pH adjustment, and equalization of plant wastewater prior to discharge

101-S04, 101-S20, 101-S27, 104-S41 Applicable Regulations

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
NA	NA	NA

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

101-S04, 101-S20, 101-S27, 104-S41 Emission Points

EU	Emission Point	Description	Construction Date	Applicable Regulations	Control Device	Stack ID
101-S04	HT-101-S04-001	Dryer #2, electric	1956	5.21	NA	S-101-S04-001
101-S20	T-101-S20-001	HNO_3 Storage Tank	NA	5.21	NA	NA
101-S27	T-101-S27-001	Nickel Nitrate Tank, 841 gal	1977	5.21	NA	NA
	T-101-NOX-007	Nickel Nitrate Scale Tank, 1523 gal	1977	5.21	ED-101-NOX-008	S-101-NOX-013
	T-101-NOX-009	Nickel Nitrate Make-up Tank, 1734 gal	1977	5.21		
104-S41	T-104-S41-002	H_2SO_4 Tank, 8500 gal	2009	5.21	NA	S-104-S41-002
	EQ-104-S41-001	Equalization Basin, 37,500 gal	NA	5.21	NA	NA

101-S04, 101-S20, 101-S27, 104-S41 Control Devices:

There are no control devices associated with Emission Unit 101-S04, 101-S20 or 104-S41.

EU	Control ID	Description
101-S27	ED-101-NOX-008	Eductor/Venturi, Schutte & Koertig, Model 7014 L 8 inch

101-S04, 101-S20, 101-S27, 104-S41 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **TAC**

See Source-Wide Specific Conditions. (See Comments 1 through 4.)

b. **Control Device Operation**

The owner or operator shall operate and maintain each control device at all times an associated emission point is in operation. (Regulation 5.21)

S2. **Monitoring and Record Keeping** (Regulation 2.16, Sections 4.1.9.1 and 4.1.9.2)

a. **TAC**

See Source-Wide Specific Conditions.

b. **Control Device Operation**

There are no monitoring or recordkeeping requirements for the control device operation. (See Comment 3.)

S3. **Reporting** (Regulation 2.16, Section 4.1.9.3)

The owner or operator shall submit semi-annual compliance reports in accordance with General Condition 14.

a. **TAC**

See Source-Wide Specific Conditions.

b. **Control Device Operation**

There are no reporting requirements for the control device operation. (See Comment 3.)

101-S04, 101-S20, 101-S27, 104-S41 Comments

1. From EU 101-S04, the potential uncontrolled sulfuric acid emissions are below the de minimis threshold levels.

2. From EU 101-S20, The potential HNO3 emissions are above the de minimis levels in Regulation 5.21. Therefore, the source performed a Tier 3 analysis of the hazard quotient, HQ, using SCREEN3 air dispersion modeling, resulting in an HQ of 0.087, which is less than the EAGNC of 1.0, and an HQ of 0.44 for industrial property, which is less than the industrial EAGNC of 3.0.

3. From EU 101-S27, the potential uncontrolled TAC emissions of nitric acid from EP T-101-S27-001, T-101-S27-009 and T-101-S27-007 are below the de minimis levels in Regulation 5.21.

4. From EU 104-S41, the potential uncontrolled emissions of sulfuric acid from EP T-104-S41-002 and ammonia from EP EQ-104-S41-001 are below the de minimis levels in Regulation 5.21.

5. There are no air emissions associated with T-101-S27-006 (Eductor Tank). There are also no air emissions associated with T-101-S27-008 (storage tank) or T-101-S27-010 (storage tank), which are closed tanks. There are no emissions of regulated air pollutants from the polymer mixer (MX-104-S41-001), sodium hydroxide tank (T-104-S41-001), pH adjustment tank (T-104-S41-003) or the thickener tank (T-104-S41-004).

Off-Permit Documents

Environmental Acceptability Determination, received by the District on December 7, 2009

Source-wide HAP Speciation

HAP	CAS No.
Antimony Compounds	NA
Chromium Compounds	NA
Cobalt Compounds	NA
Hydrochloric Acid	7647-01-0

HAP	CAS No.
Manganese Compounds	NA
Nickel Compounds	NA
Radionuclides (including radon)	NA

Insignificant Activities

Description	Quantity	Basis (Regulation 1.02, Appendix A)
Combustion sources < 10 MMBtu/hr	23	Section 1.1
Internal combustion engines, fixed or mobile[1]	3	Section 2.
Brazing, soldering, or welding equipment, potential emissions less than 5.01 tpy of a regulated pollutant or 1000.0 lbs/year of a HAP	7	Section 3.4
Lab ventilating and exhausting systems for nonradioactive materials, potential emissions less than 5.01 tpy of a regulated pollutant or 1000.0 lbs/year of a HAP	27	Section 3.11
Research & Development facilities, potential emissions less than 5.01 tpy of a regulated pollutant or 1000.0 lbs/year of a HAP	1	Section 3.27

1) Insignificant activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.
2) Insignificant activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.
3) Activities identified in regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.
4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment, since the emissions from the source's Insignificant Activities are very minor in comparison to the plant wide emissions.
6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
7) The owner or operator shall submit an updated list of insignificant activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

1 These engines are not subject to 40 CFR 60 Subpart IIII, 40 CFR 60 Subpart JJJJ, or 40 CFR 63 Subpart ZZZZ.

Protocol Checklist for Performance Test

A completed protocol should include the following information:

- ☐ Facility Name, Location, and ID #;
- ☐ Responsible Official and Environmental Contact Names;
- ☐ Permit #s which are requiring the test to be conducted;
- ☐ Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ Alternative test methods or description of modifications to the test methods to be used;
- ☐ Purpose of the test including equipment, and pollutant to be tested; the purpose may be described in the permit which requires the test to be conducted or may be to show compliance with a Federal Regulation or emission standard;
- ☐ Tentative test dates (these may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation);
- ☐ Maximum rated production capacity of the system;
- ☐ Production rate goal to be achieved during the performance test for demonstration of compliance;
- ☐ Method to be used for determining rate of production during the performance test;
- ☐ Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ Description of normal operation cycles;
- ☐ Discussion of operating conditions that tend to cause worse case pollution emissions; it is specifically important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ Process Flow Diagram;
- ☐ List the type and manufacturer of the control equipment if any;
- ☐ List the Control Equipment (baghouse, scrubber, condenser, etc.) parameter data to be monitored and recorded during the performance test; note that these will be used to ensure representative operation during subsequent operations; this can include pressure drops, flow rates, pH, and temperature; since the parameters achieved during the test may be required during subsequent operations describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ Generally describe the proposed test, how it will be conducted, how measurements will be taken, and how quality assurance and accuracy of the data will be maintained.
- ☐ How quality assurance and accuracy of the data will be maintained, including;
    - Sample identification and chain-of-custody procedures;
    - Are Audit samples required for this test Method (EPA contact number for Audit Samples 919-541-1062) if yes then please make samples available to the District for observation during the stack test;
    - Audit Sample Provider;
    - Number of Audit Samples to be used:
- ☐ Pipe, duct, stack, or flue diameter to be tested;
- ☐ Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- ☐ Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
    - Method 1 if stack is >12”
    - Method 1a if stack is between 4” and 12”

- Alternate method of determination for <4”
- If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.

End of Document.